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## EDUCATING FOR RESPONSIBILITY



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# EDUCATING FOR RESPONSIBILITY

## THE DALTON LABORATORY PLAN IN A SECONDARY SCHOOL

BY

MEMBERS OF THE FACULTY OF THE SOUTH  
PHILADELPHIA HIGH SCHOOL  
FOR GIRLS

The essentials without which a person cannot be quite sound mentally and with which, apart from accident, infection, or heredity, one can have no serious mental disorder, the absolutely essential conditions are three: a task, a plan, and freedom.

WILLIAM H. BURNHAM, in *The Normal Mind*

New York

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1926

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## AFFECTIONATELY DEDICATED

To our Children, who have taught us how fine an art teaching may become

To our Faculty, past, present, and to come — hard-working, professionally-minded, intelligent, wise, courageous — who have seen the vision and who have opened wide the doors

To our Office Force, whose calm efficiency will always be the necessary link in putting the assignments promptly and regularly into the hands of the children

To our Superintendent, Dr. Edwin C. Broome; to our Associate Superintendent, Dr. George Wheeler; and to the Members of the Board of Education, whose practical open-mindedness has enabled us to carry on

To our Visitors, to whose enthusiasm and intelligent criticism we owe much

To the Secondary Teachers in the United States, more than a hundred thousand strong, who also believe that

EDUCATION SHALL OVERTAKE CATASTROPHE



As an old Stoic proverb has it, men are tormented by the opinions they have of things, rather than by the things themselves. . . .

It is quite true that what we need is education, but something so different from what passes as such that it needs a new name. . . .

Once I was afraid that men might think too much ; now, I only dread lest they will think too little and far too timidly, for I now see that real thinking is rare and difficult and that it needs every incentive in the face of innumerable ancient and inherent discouragements and impediments. . . .

Our age is one of unprecedented responsibility. . . .

We are in the midst of the greatest intellectual revolution that has ever overtaken mankind — intelligence may be raised to a recognized dignity and effectiveness which it has never enjoyed before. . . .

I have no reforms to recommend, except the liberation of intelligence, which is the first and most essential one.

JAMES HARVEY ROBINSON  
in  
*The Mind in the Making*



## FOREWORD

THE South Philadelphia High School for Girls has been experimenting with the Dalton Plan for three years. The first year, however, was merely a go-as-you-please race with relatively few entrants. These few, fortunately, were not only courageous, but also intelligent. They were specialists, it is true, but not mere specialists; practical teaching psychologists, but not merely psychologists. They were artists in education, rather, realizing intelligently and emotionally the unique opportunity for real and creative service to the particularly inspiring young adolescents committed to their care.

The first year was devoted to the study of the Dalton Plan as presented by Helen Parkhurst in relation to its application to our own groups, in the unfavorable and very overcrowded *milieu* in which we were compelled to work. In particular, we experimented with individualized assignments and individualized check-ups, or tests. As usual, although the whole faculty listened, and listened intelligently, it was the few who got down to the details, actually writing assignments, who led the rest of us. These soon demanded the opportunity to take the next step, by giving to the children what now they eagerly and obviously craved; viz., *freedom to do their work at their own speed and in their own time*. Obviously this was impossible without the intelligent and willing coöperation of the entire faculty. It was put to a secret ballot. *More than ninety per cent of*

*the faculty, knowing that if we failed, it was our own personal failure, not the failure of the plan, voted to try it out for a year, at least.*

This spelled almost unbelievable courage, for, as I have indicated above, we were compelled to work under conditions that sometimes prevented us, individually, from giving our children the more or less conventional freedom the need of which had long been a conviction with most of us.

Our faculty are not only courageous. They have vision, together with a scientific attitude toward their experiments, which keeps them always divinely discontented. They are not, and never have been, satisfied with their own work. But they would not be intelligent did they not know how much more than ever before they now are helping the children to acquire and practice the big things that count — a sense of responsibility, initiative, love of work for its own sake, and honesty.

But why rush into print, say you? We have three reasons :

1. We have taken at least *one* step on the road to freedom and are enthusiastically conscious of the gain.
2. Other teachers from many parts of the United States, and even from abroad, have asked us many questions and sought much concrete aid. We have given, always to our utmost, but, in the midst of the battle, this is not nearly as easily and effectively done as afterwards, in the comparative quiet of our out-of-school workrooms.
3. We are deeply interested in helping intelligent, often gifted, children to get a high-school education instead of being thrust into what are almost surely blind-alley jobs. Financial aid is a *sine qua non* oftener than one could

believe possible in this the wealthiest country in the whole world. The royalties from *Every Day Manners* have been our largest single contribution to our Scholarship Fund. We greedily hope that this book, which we believe to be a road to freedom in education, may help many to reach graduation who else might not even begin the journey.

Thus am I expressing for an entire faculty the real ardor with which they send out this book. May I say for myself that I am deeply grateful for the opportunity that has made me a part of it and of *them*! The book is very truly the work of all the teachers in the departments represented rather than the exclusive creation of those who have signed the chapters. In addition to this acknowledgment, special mention ought to be made of the editorial work of Janet Baird of the English department. To her critical supervision is due much of the final unity of our work.

LUCY L. W. WILSON

SOUTH PHILADELPHIA  
HIGH SCHOOL FOR GIRLS  
*November 1, 1925*



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# EDUCATING FOR RESPONSIBILITY

## CHAPTER I

### PRINCIPLES

I sympathize with those who object to the words "Dalton Plan." It is as inept as "Holy Roman Empire" or "English Public Schools," for the educational system so called is neither Dalton, nor merely a plan. Rather, it is a coördinating principle, helping us to synthesize what has been taught us by our educational leaders: how we think; how we learn; how we can best develop in ourselves and in our children abilities and habits and skills and attitudes, or *character*; and, above all, how we can do it, so that in school and out, now and forever after, education shall mean to those whom we teach, "a continual and continuous making over of life, at the time of learning, to ever higher and richer levels."

Nor need practice lag behind theory, for it is also a coördinating principle that helps us to crystallize into practice whatever experience has proved worth while: segregation and teaching according to ability; supervised study; socialized recitations; problems; projects; platoon organization; house plans.

The fundamental principles of the Dalton Plan, as we in the secondary school interpret it, are:

1. *Individualized instruction*, so that each child may work to capacity, in spite of great individual differences.

2. *Freedom, with stabilizing responsibility*, so that each child may work at his own speed, in his own time.

3. *A socialized environment: community living*, so that each child may be not merely "an intelligent participator in the life of his immediate group," but also a part of the still greater objective, "to bring the various groups into such constant interaction that no individual, no economic group could presume to live independently of others."

**Individualized instruction** did not originate with the Dalton Plan and is not peculiar to it. The problem has been attacked in this country along two main lines:

a. The segregation and the teaching of normal children in accordance with their abilities, with special classes for the sub-normal, and, sometimes, for super-normal children.

b. The individual assignment, either within or without a segregated group.

*Segregation and teaching based on ability.* The enforcement of compulsory education laws and the growth of junior high schools, together with the development of scientific measurements of individual differences, in this country, at least, are rapidly leading to the attempt at more or less complete segregation and the teaching of all pupils in accordance with their abilities. In several American cities, research bureaus have carefully measured the results obtained from such segregation. Detroit, in particular, has been carrying on, since 1920, a scientific experiment in segregation according to abilities and in individualization of instruction from the first grade up. In European countries, two generations of compulsory education compelled such segregation, long ago, by a trial and error method that has been remarkably successful. For example in Denmark, it is this efficient and practical segregation, beginning at the

end of the first grade, that accounts, largely, for the literacy of all the people. Probably, too, their own successful accomplishment is one of the reasons for the slowness with which they are investigating and adopting our scales and measurements.

For seven years, we in South Philadelphia have been experimenting with rapid and slow progress classes. The initial segregation is in accordance with I.Q.'s determined from group tests given, now, in the respective grammar schools. The classes are paralleled, thus making it easy to change a pupil from one group to the other whenever it is the judgment of the teacher that in the subject she teaches, at least, the classification was a mistake. Whenever a child is reported by two or more teachers as probably not high school material, she is given a battery of tests by our psychologist. If the psychologist so recommends, and the parents agree, then the child is put in to an *extension class*. This means that she is given work, suited to her abilities, in English, in health, in practical citizenship, together with some vocational training in office practice, typing, and filing. The children are happy and successful in this work. We have been able to place them and they have made good both in filing, office work, and typing. After all, those with more ability do not always successfully cope with the monotony and drudgery of eight hours daily at a machine!

The great advantage of the extension course to these pupils is paralleled by a corresponding advantage to the teachers and to the classes from which they are taken. But the range of abilities within groups is still almost unbelievably large. The individual assignment within the segregated group has been of great service to us in still further bridging the gaps.

*Individual assignments.* Frederic Burk, of the San Francisco State Teachers College, abandoned the daily verbal assignment, as well as the daily recitation, in the training department, giving to each elementary pupil, instead, a copy of the course of study in each separate subject. These detailed courses of study were originally intended to guide pupil teachers. The immediate success of this project stimulated the faculty to produce, finally, a series of "self-instruction bulletins," in six subjects, covering some twenty-six phases of grade work. Until they were prohibited from doing so, these were sold at cost to any one interested. The idea of printed assignments covering long periods of work still live in San Francisco, in Winnetka, and in many other cities.

Individual assignments for upper grammar grades, originated by Burk, have been still further developed, especially along two lines:

(1) *They have made provision, definitely, for individual differences.* This may be done in one assignment either by double-starring the maximum units, or by collecting all the maximum work in a single optional assignment, grouped at the end. Some teachers prefer to have the maximum work quite separate, so that those who cannot do it may not be teased by seeing it. For illustrations, see Appendix, pp. 187-190; 196; 213; 235; 245; 247; 257-259; 267; 276.

(2) *They have made provision, definitely, for socialization.* For examples, see pp. 38-42; 185, IV, A; 289.

Individualized instruction demands not only the individualized assignment, but also individualized records, check-ups, and tests. These in their turn tend to develop a sense of responsibility, which makes it relatively easy so to organize even a large school, that each child may actually work

at his own speed, in his own time, and on material suited to his abilities.

**Freedom with stabilizing responsibility.** Rousseau was the first to advocate the utilization of the principle of liberty in education. It was emphasized also by both Pestalozzi and Froebel, although their followers have often failed to use it in their practice. That we in this generation and in this country, in our grammar and high schools, as well as in the kindergarten and in the elementary schools, are able to practice what they preached is due more to John Dewey than to anyone else. We must acknowledge, too, the stimulation that has come from Mme. Montessori and Helen Parkhurst.

Freedom with stabilizing responsibility is secured by helping the child to do his own time budgeting. In spite of weekly and other conferences, and still other fixed periods, such as assemblies, a short daily period with the student advisers, chorus, physical training, art, foods, and clothing, the child has about half the time "free." With the help of his student adviser, of his subject teacher, and especially of his own successes and failures, he learns how best to use that free time in order to get the largest results from his effort. He becomes in a small way an efficiency engineer. He is the master, not the servant of his tasks, acquiring the habit of seeing always the part in its relationship to the whole.

**The social environment** in which children do their work is now of supreme importance. The modern answer to the question, "Who is your next door neighbor?": "Why, the man I do not know," indicates clearly the reason why the school must help its children to real community living. It is no longer enough that they coöperate with their teachers

and their classmates. They must have the opportunity to be socialized across the years, with any and all of the children in school, at least. The substitution of the atmosphere and the equipment of the laboratory for the cold, formal, separate classroom helps to accomplish this. Children meet here with other children, not because they are the same class or grade, but because of a common interest. Intimacy and coöperation are natural and inevitable. This is splendidly illustrated in Miss Parkhurst's own school, the Children's University School, New York. In South Philadelphia, we have not yet attained, to our own satisfaction, either the substance or the shadow. In our overcrowded building, each classroom is used by at least two different teachers in our long four-shift day. But we have often had the spirit with us in working out school projects. We hope some time to gain it less consciously and with less effort.

The ability to give her classroom the feeling of a laboratory, the place where one works, the *beautiful* place where one works, is peculiarly within the range of the artistic feeling of high school teachers. Obviously the informal type of furniture, with tables and moveable seats, not only adds to the atmosphere, but makes it mechanically easy to work in smaller groups. Pictures, plaster casts, books, pamphlets, autographs, and other illustrative materials will accumulate certainly as rapidly as in the subject rooms of more conventional high schools.

## CHAPTER II

### PRACTICE: THE ASSIGNMENT

**Writing assignments.** The assignment is the pivot on which success depends, for no school can safely give time freedom to its children until the majority of the teachers have acquired some skill in writing assignments.

An experienced teacher who understands the laws of thinking and of learning, who knows children as well as her own subject, and who has vision, will learn, easily and quickly, the fine art of writing assignments. Unfortunately, many secondary teachers are mere specialists. Their assignments will be no poorer than their teaching, but their lack of real skill will be thrown into the limelight. On the other hand, writing assignments develops teaching skill, almost miraculously, and makes wise supervision function infinitely better than would otherwise be possible. In a large school, moreover, there are frequently several teachers for the same grade of work. The coöperative writing of assignments and the thoughtful pooling of criticisms of the actual working out of these assignments develop finally much individual skill.

In general, it is necessary to remember, in a written assignment, as in oral teaching (1) that the child must be helped to climb the mountain, step by step, and not allowed to leap from peak to peak on the back of some one else; (2) that "pivotal questions, in close sequence" are essential and invaluable tools; and (3) that *little* and frequent summaries, if thought out by the children, are great helps

to the understanding of the larger unit, as well as to the memory.

The teacher should outline for her own use, and, therefore, very briefly, a month's work, subdividing this into smaller units. It does not matter whether these units, normally, will require a period or more than a period for their accomplishment, but it is essential that the teacher should judge about how much time will be required by the average child, in order to give a comfortable minimum amount of work, and also, in order to plan intelligently, later, for elective maxima. The teacher ought to work all this out with the picture of her particular class before her.

Before finally writing out the assignment, she should meditate on how to do so attractively. A little lure in the wording helps, although, as in oral teaching, too, it must be real, not artificial, and, therefore, not constant nor omnipresent.

Elective maxima (see Appendix, p. 192) may be placed where they logically belong, or grouped together at the end of the assignment, or on a separate sheet. They ought not to be attacked except with the permission of the teacher. She must feel reasonably certain that the minimum has been thoroughly done. In general, successfully completing the maximum probably means a higher grade, or mark, for the pupil. Quality, however, is of the first importance. It is quite possible that a minimum accomplishment might deserve at least as high a grade as the minimum and one maximum.

The teacher should devise suitable check-ups for each real unit of work. See Appendix, pp. 298-303. These "check-ups," with keys, are really individualized, self-corrective devices, and are certainly far superior to the oral quiz,

although that, too, has its uses, especially when combined with a topical blackboard outline.

Obviously, check-ups can be variously administered: self corrected; corrected by another student, either individually, or in a conference; corrected by the teacher. They cannot take the place, entirely, of a longer test. Usually, the child who fails to do good work in the longer test has not been rigid enough in checking himself up. No better opportunity to teach that honesty is at least a wise policy is likely to offer itself. Moreover, the next month will again give the opportunity to practice this virtue. These opportunities are so numerous in every subject, the effects so cumulative, that we have begun to hope that it will become instinctive with *every girl*, at the end of four years, to judge herself with clear-sighted intelligence and invariably to do her work honestly.

Assignments and check-ups should be mimeographed from typewritten stencils. The pupil will need something in which to keep these individual assignments always on hand and fairly clean for the month in which she will use them. Nothing better than Miss Parkhurst's *Job Book* has yet been devised. It is made of press board, longer and wider than the assignment paper. To this the assignments are fastened together at the top with brass fasteners. The press board cover must then be folded to protect the assignments.

Any teacher, in any subject, who wishes to try out the experiment, can plan assignments and check-ups, give laboratory periods with time freedom within her own classroom time. There have been many such pioneers in the Philadelphia high schools.

**The advantages of the individualized assignment. To**

*the child.* Individualized assignment removes most of the handicaps due to (1) a short memory span: helpful suggestions are at hand when needed. Therefore, they are heeded when needed instead of being cast into the limbo of the forgotten. (2) Absence: again and again we have been able to send assignments to children, absent but not ill, in quarantine, for example, thus enabling them to keep up to grade fairly easily. They help, also, with briefer absences, whether occasioned by religious holidays or illness, or some other reason.

Almost automatically, it takes care of difficulties due to different abilities, or different rates of speed, or both. In particular, the slow, intelligent child gets the opportunity to ponder on a problem, until understanding comes to him. In addition, it compels the superficially clever, clear-minded child to get down to real work. This is rightly reflected in marks. Many slow F (fair) girls are now getting G (good); and, on the contrary, the lazy clever child is either working harder, or else getting a lower grade.

It makes it easily possible not only to make the aim clear, but also to make it reasonably certain that each child sees each unit of work in its proper setting and perspective. It may, even, efficiently motivate platoon work, so that the message reaches each individual child.

*Advantages to the teacher.* (1) It compels better and ever better pedagogy: the teacher *must* see her subject from the viewpoint of the child. (2) It makes supervision efficient. A department head may know, with a minimum of visiting, exactly how the work is being done, whether it is functioning, and why. He is in the position to give first aid and professional advice; the teachers are in the position of being able to ask for help, concretely and definitely. (3) It helps

to discover children's difficulties and to show that these may come from different causes, some of them curable. For example, the teachers this year have asked for individual psychological examination of three times as many children as ever before. (4) By posting the assignments in all subjects, according to grade, teachers get a bird's eye view of all the work, and are able to coöperate as never before. (5) The substitute teacher is less of a problem and creates far less havoc. (6) Teachers no longer shrink from being observed at work. They are unselfconscious in the laboratory atmosphere in which every one is working toward a definite goal.

**The disadvantages of the individual assignment.** *To the child.* We have discovered no disadvantages yet, except those caused by a poor assignment, which may be too long, too difficult, not clear and definite enough, — especially in reference to the methods of work and the details of requirements, in the way of notes and the like, expected by the teacher.

*Disadvantages to the teacher.* The individual assignment requires more work at first. This difficulty soon disappears, however, especially in view of the return both to the teacher and to the children. It gives rise to the usual difficulties of adjustment to new and different methods. We have solved most of these with comparative ease. It may be useful to others to list such difficulties, as (1) too much work assigned; (2) too difficult work assigned; (3) details not definitely and clearly stated; (4) inadequate technique for compelling the children to read the assignment understandingly; (5) inadequate technique for compelling the children to refer to the assignments whenever necessary.

As one of our best teachers succinctly said: "Sometimes

I find the assignments hampering. I have reached a certain place in the work. My judgment, at the moment, demands one thing, but the assignment calls for something else. Sometimes I follow my judgment, sometimes the assignment. No matter which I do, I feel guilty. I know the solution lies in making out assignments that are *absolutely* satisfying. We'll come to it in time, I suppose."

## CHAPTER III

### TEACHING TECHNIQUE

**Appearance of the school.** *The corridors.* Probably the first thing that impresses a visitor in the appearance of a Daltonized school is the fact that at any hour of the day children may be seen in its corridors, not loitering, but moving along in a business-like way. This is due to the individual time freedom — meaning that any child is at liberty to move whenever he wishes, except for fixed periods, and wherever he thinks that he can best do his work.

*The study hall.* If he needs only such aids as he carries with him, then he goes either to a non-conference classroom or to study hall. Study hall, under the new régime, is phenomenally quiet, regardless of the presence or absence of a teacher. This is in marked contrast to the study hall of former days, where, as in every promotion-by-subject high school, children were sent according to the exigencies of the individual roster. Then quiet depended upon the efficiency both of the teacher in charge and of the very numerous student association officers. Now it is the result of a purposeful activity that demands and gives quiet as an unconscious by-product.

*The library.* If, on the other hand, the child needs to use reference books, then he seeks the library. In South Philadelphia, this is now one of the busiest places in the school, demanding the full time of two librarians. They serve three times as many readers as ever before and give out twice as many books. This is true, in spite of the fact

that the library is now reserved entirely for its own work, never being used, as in the past, for the overflow from study hall, nor for individuals who seek its quiet to study from textbooks.

**Management of the school.** *Group work in the classroom.* If, on the contrary, the child needs to use classroom equipment, or the teacher, then he may remain in the classroom, even if a group conference is going on at the same time. In the classroom, it is, therefore, very usual to find something closely resembling a three- or four-ringed circus. Here is where movable furniture with several tables automatically make good group work much less difficult. In our own school, I have often seen able teachers successfully surmounting the obstacles of fixed furniture, inadequate floor space, insufficient equipment, and, at the same time, watching efficiently a socialized group conference, guiding check-ups, keeping an eye on study groups, and even giving a bit of individual help. Of course such a teacher is not only an artist with a scientific attitude toward her work, but also an efficiency engineer, with much organizing ability. Most of us can hope only to approximate such skill.

Under proper conditions, in spite of a bit of monotony to those whose interest in subject matter is keener than their interest in individual children, the smaller groups, into which even a class segregated according to abilities speedily and obviously separates, are ideal for real learning. As it is, however, many of our good teachers try to keep the groups as few and as large as possible, calling class conferences, when necessary, rather than group conferences. Others have developed remarkable skill in successfully driving a four-in-hand. Sometimes this is because they are good organizers and managers; sometimes, it is a curious *teacher-y*

ability, more or less instinctive. One says, "I find that it is possible so to manage that each group is led to develop a sense of pride in the quiet, orderly, busy way that the work is carried on. . . . Commendation for quietness has helped more here than criticism. Going round among the groups, talking in a very quiet tone myself has helped likewise." This teacher, obviously, is one who likes to keep her flock right by her side. Others, equally efficient, see that those who can work alone go to the study hall, that those who need library books, seek the library. After all, teachers, too, to be successful must follow their own rhythm.

In some classrooms, a sign marked *conference* indicates that the whole class is within and that no other pupils can be accommodated. Theoretically, one quarter of the time allowance per subject is so spent. As a matter of fact, however, every teacher may call more or fewer class meetings, according to the exigencies of the work, the quality of the assignment, the abilities, the training, and the homogeneity of the group.

*Procedure of the first month: supervised study with an assignment.* In every subject, the first assignment for each new term should have as its objective, teaching the children, concretely, how to study. That they may have opportunity to practice studying, the minimum assignment of work must be quite within the capacity of the slowest and the least able in the group, with suitable maxima for those who need less supervision.

In general, children need to learn to visualize wholes; to see the high lights, the connecting tones and half-tones; to learn how to get information from books (how to use the table of contents, index, text, illustrations); how to use reference books; how to get information from people;

from observation; how to summarize; how to outline; and to understand the hygiene of study.

In the first assignment, the minimum must be small and so presented (1) that it may be visualized as a whole; (2) that not only the smaller units are well-defined, but also their relationship to each other and to the whole may be easily seen and understood; (3) that the details of the method by which each is to be conquered are attractively, definitely, and simply written. There must be a definite plan for a maximum of thoughtful reading and of doing, with a minimum of written response. Another important objective — habit formation — must be planned for. The teacher should list for herself the habits that may easily have their beginnings in the first month. She should deliberately plan, in the assignment, to make the child conscious of the birth of one or more habits. The assignment should provide the opportunity for the necessary “attentive repetition.” Curiosity and feeling, two strong allies, should be aroused.

The following classroom procedure is suggestive, only:

1. Distribute the assignment.
2. Give the children time to read it through.
3. Ask certain general questions; for example:

What is the big thing that we shall do this month? Do you know anything about this subject, or have you had similar experience? How does this help you to understand? Read the paragraphs for the first week. How many of you now know just what to do and need no further help from me? Stay here for discussion if you wish. Go to the back of the room to work, or to the library, or to the study hall, if you prefer. Yes, it will be wiser to stay here, perhaps.

4. Proceed with the following directions:

a. Read: sit back when you have finished. What picture is in your mind?

b. Read: get the books or other tools that you may need.

5. So continue until a small unit of work has been prepared under watchful and intelligent observation, with individual help given whenever needed.

6. What are the big things? Write these on the board as given by the children, helping them to arrange them in a logical order, with space between the main items. Such questions as the following may be asked:

a. How shall we connect this peak with the next? Fill in the board outline.

b. Close your eyes. Do you *see* these peaks? Think them slowly.

c. Close your eyes again. Do you see what comes between so and so?

d. How much more of this assignment can you do before we meet again?

7. It is sometimes convenient and possible for each pupil to sign up for this on a  $3 \times 5$  card. If this device is used, then keep the records, giving them out *at the next meeting*, asking how many have accomplished as much as they hoped to do.

8. Help the children to give you again the peaks or high lights and to fill in the blackboard symbols of the picture.

So are born justifiable confidence, right habits of thought-getting from reading, and the "focalization of consciousness" on the right habits of study. But birth is not enough; the infant must be carefully fed and cared for.

Every child should be held *rigidly* responsible for doing whatever is outlined for him to do in the assignment. He may be permitted to do it in his own time at his own rate of speed, but he *must* feel the responsibility for doing it thoroughly and accurately.

Before the month is over, the children should have learned, more or less unconsciously, depending upon their age and abilities, the law of association of ideas and the advantage of the recall, and should have gotten into the habit of stopping to make frequent *thought summaries* in

the midst of their reading, and *little reviews* at the end of each unit of work. Even if they have gotten little else, much time will be saved in the long run by this slow conscious acquirement of facility in the use of tools and in right habits of work.

It is our experience that this preliminary "how-to-study month," with supervision of the work, is a worthwhile investment for all grades, every term. For freshman, it is an imperative necessity, and, probably, should be continued for two, three, or even four months, varying with the subject, the teacher, and the children.

*Procedure of the succeeding months.* After the pupil has learned how to study, there comes a time when he must learn how to measure his accomplishment in terms of the amount of time required for the doing and the thoroughness with which it is done. In other words, he must learn to *budget his free time* and how to use intelligently and successfully *self-corrective devices*.

(1) Time budgeting. In our large and overcrowded high school, not more than half the time of the pupils is "free," and its distribution, over the day and through the week, varies according to the individual roster. Each pupil must attend any conference, whether class or group, to which she may be called. Assemblies, luncheon, physical training, chorus, art, foods, clothing, and club, are all fixed periods, variously distributed through the week.

The responsibility for properly budgeting or dividing the free time of the pupil among the major subjects is put upon her, with the student adviser, the teacher whom she meets from fifteen to thirty minutes every day, as a guide, philosopher, and friend. The classroom teacher, however, will need to help the child to realize what part of her free

time ought probably to be devoted to her own subject. With our plan of asking the child to follow her roster rigidly the first few weeks, both the teacher and the pupil have premises on which to judge of the relative amount of time required by each child for each subject. This is an occasion in which the teacher has an opportunity to practice a flexible mind, realizing how much more important is each child than any subject — even her own!

These pivotal directions and questions, suggestive only, presented by the student adviser, will help the children to envisage the problem :

1. Make a list of the subjects in which you can do good work fairly easily.
2. Make another list of subjects that require more time.
3. Make a third list of the subjects in which you are weakest.
4. How much free time, each day, will be at your command?
5. Look at your daily roster. Decide how much free school time should be spent on each of these subjects. You may take additional home time, if you wish. Now, subdividing the paper into four columns, make a list putting the subjects in the first column; free school time opposite each, in another column; in the third column, additional home time that you think may be required; leaving the last column free for comment that may help you next week. Follow this schedule for a week.
6. You have been on your own schedule for a week. Has it worked well, or ill? Did you give too much time to any subject? Too little?
7. Make out a similar schedule for next week. Is it a neater and better schedule than that for last week? Why?
8. Is the amount of time required for any subject always about the same? Look over your schedule. Have you made enough allowance for variation in the subject?
9. Take out the graphs. Hold them so that I can see them.

The teachers should then inspect, praise (when possible), classify (a little opportunity for motor activity !)

Of course, neither pupils nor teachers can become expert time budgeters in a single month. It takes a long time, and many reminders, to do anything systematically and well. The question is, therefore, Is the graph worth the effort? Yes, and so, too, are the other graphs, one showing the relative progress of each member of a class, and the

MONTH OF	LAST NAME		FIRST NAME		DATE BEGUN . . . . .	
192	RESIDENCE		CLASS		DATE COMPLETED	
					DAYS PRESENT . . . . .	
					DAYS ABSENT . . . . .	
					TIMES LATE . . . . .	
SUBJECT						
FIRST WEEK						
SECOND WEEK						
THIRD WEEK						
FOURTH WEEK						
RATING						
SIGNATURE OF TEACHER						

FORM N 87—PROGRESS GRAPH, PUPIL—SCHOOL DISTRICT OF PHILADELPHIA (APRIL 1923)

FIG. 1.

This card was adapted by Miss Sill, principal of the Trade School for Girls, from Miss Parkhurst's larger card. It is a most important visualization aid, both to the teacher and to the pupil, and should be frequently inspected both by the teacher and the student adviser. At the end of the month, each teacher inserts the individual grade over her own rubber stamp signature. The graph then serves as a monthly report card. On its reverse is an explanation of the grades and a place for the signature of the parent.

other the progress of each member of the group under the direction of a student adviser. They make for real understanding and intelligent responsibility.

(2) Self-corrective devices or check-ups. Most often, these have taken the form of mimeographed materials with

desk or even individual keys. Some teachers have shown great originality in devising such tests. One of the science teachers, for example, cut out pictures from the *Saturday Evening Post*, and other cheap and popular periodicals, graphically and practically illustrating principles of machinery, and the like. She pasted them, each on a separate piece of paper, with a question. For example, a tragic picture of a raft in a raging sea, was questioned as follows: How much water will this raft displace? Is any of this due to the volume of the raft? Why? A lovely river-scape asked the pupil to account for the shapes of the supporting columns of the bridge, a beautiful bridge with a sloping approach. Why are the approaches so built? What machine does it represent?

One of the art teachers finds a *concourse*, sketching from memory, exercises in dividing a given space rapidly, exercise in space filling, and the like, interesting and helpful check-ups on skill in drawing.

The theory of the check-up is that it shall determine fairly accurately whether a pupil is now able to go on with the next unit, or whether he ought to review the one just completed before going on. Theoretically, it should be self-corrective, but it is extremely difficult to devise self-corrective check-ups that can be successfully used except by good or superior students. This is true, even, of the most satisfactory of the word tests, — multiple choice and completion tests. In English, standardized tests, and in mathematics, standardized practice material, help to solve the difficulty. We have found it easy enough to devise self-corrective check-ups for fact accumulation or even assimilation, but to compel or to test thought is much more difficult.

Children need training in the simplest kind of self-rating. One of the teachers, discovering that the pupils were not checking themselves accurately, chiefly because they did not know when they were wrong, is now training them. She grades the papers first herself. If the pupil does not come within ten of her grade, then she must repeat the previous unit, before going on with the next. This is a costly but effective device, "learning to do by doing."

## CHAPTER IV

### SCHOOL ORGANIZATION

**Plan used in the Children's University School.** In Miss Parkhurst's own school, the Children's University School, New York City, the morning is subdivided into a school organization period, fifteen to thirty minutes, a long laboratory period, about three hours, and a conference period of thirty to forty minutes. In the afternoon, most of the children return for physical training, excursions, and the like. The theory is that one or two conference periods a week in each subject, in addition to the equivalent of three or four laboratory periods, on an average, will give the ordinary pupil time enough to do each contract, or assignment, as it should be done. Conference periods are arranged for through a bulletin board. First come first served is the rule so far as the teachers' wishes for conferences are concerned. In practice, in that school, at any rate, it works out all right, giving each pupil practically the full three-hour laboratory time in which to do the work outlined in the "contracts," in his own time, at his own speed, under the most favorable conditions—in laboratories, adequately and properly equipped with a teacher more or less at his service. In a school as large and overcrowded as ours, with teachers carrying a much heavier pupil load, to attempt to do this was to invite disaster. Miss Parkhurst herself wisely writes:

But as liberty is an integral part of that ideal, I have carefully guarded against the temptation to make my plan a stereotyped cast-iron thing ready to fit any school anywhere. So long as the principle

that animates it is preserved, it can be modified in practice in accordance with the circumstances of the school and the judgment of the staff. . . . The Dalton Laboratory Plan must not be regarded as a cast-iron scheme. I offer it as a first step towards the evolution of a scheme of education which will develop the creative faculty in both teachers and pupils. I have been animated in elaborating it by a desire to remedy some of the ills our schools are heirs to, and especially the worst of these, which is, I believe, the absence of opportunity for the learner to learn. Teachers go to training colleges to acquire the art of teaching before they practise it, so pupils should be given the chance to acquire the art of study before they can be expected to learn. . . . I do not claim to have perfected my plan. Many minds must concentrate and coöperate upon it if it is to be a living and vital thing. . . .

**Modifications necessary in the South Philadelphia High School for Girls.** Before listing the modifications of the Dalton Plan which we have found more or less essential to the full development and functioning of its underlying principles, I am going to ask you to visualize our school.

The South Philadelphia High School for Girls, like most large high schools in the larger cities of the United States, is of the cosmopolitan type. Very definitely, we prepare our children for college; for the Philadelphia and other normal schools; for technical schools, such as schools of pharmacy, library schools, physical training schools, nursing schools; for specialization, later, in the home, in art, or in music; and for immediate placement, usually in offices or other commercial positions.

Every girl, regardless of her objective, must take English and physical training every year. In addition, no girl may be graduated from any course without a minimum of two and a half years of social studies, one year of which must be in American history; and a year each in science, in mathematics, and in art.

Additional electives are determined by the requirements of the objective, and the needs and the tastes of the individual child, under *definite educational guidance*.

In curricular and organization details we follow the Philadelphia program for secondary schools. Nevertheless, and from the very beginning, we have been acutely conscious of our own responsibilities to learn, regardless of geography, from any who could teach us, and then, creatively and efficiently, to adapt this wisdom to our conditions. In the best sense of the word, we have always been experimenting, and, in spite of many handicaps, always conscious of our great objectives. We have tried to teach our children in accordance with their abilities. We have helped each to function in curricular and extra-curricular activities in a spiritually and intellectually rich and happy school environment. We have never forgotten our duty to give each child actually equal opportunity to acquire right habits and attitudes, to develop skill, and to acquire knowledge.

To put it more technically we are segregating the children according to abilities, determined by standardized group and individual tests, into parallel rapid and slow progress classes, where the more personal and intimate judgment and knowledge of the classroom teacher may function. We are teaching the children "how to study" each new term, and in each subject. We supervise their study. We have socialized not merely recitations, but clubs, assemblies, and even our commencements. Problem and projects are motivating our work, and, at times, we have conserved time and rooms with a modified platoon plan.

Moreover, to the great advantage of the majority, we have still further segregated out those who obviously cannot

be expected to complete a four-year high school course, and are giving them an "extension course" already described in the first chapter. Nor are we neglecting our able students. For them, we are broadening the curriculum, giving them still more freedom and responsibility. In the meantime we are studying to develop an "honors course" for our ablest students, which we shall inaugurate, when we know how, even if we have only a single candidate!

Our greatest handicap was and is that we have far too few classrooms — only forty, counting even the science and household art laboratories, for eighty-two teachers and two thousand children. True, we have in addition a gymnasium, much too small; a library; a study hall; and the part-time use of a large assembly room. Moreover, a part of the staff — the three educational counselors, two librarians, a study hall director, a nurse, and a part-time physician — do not actually need separate rooms. Nevertheless, we have had to resort to overlapping shifts, four of them, each with a luncheon period as long as a classroom period (again with inadequate and unsuitable lunch-room facilities and equipment), in order to get classrooms enough for the rest of the children.

Traffic conditions, also, are difficult. On the second and third floors, we have blind alleys, narrow at that; on the first floor, only, is there actual circulation. Student traffic and sanitation squads — in fact, student participation in all of our activities — make our difficulties not burdens, but mere problems in educating young people.

We in the South Philadelphia High School are not in the least sure that our modifications are improvements. We are quite certain that, with experience, we shall modify them ourselves. We do know, however, that our organization

has been sufficiently flexible to give freedom for creative work both to teachers and to children, yet with backbone enough to keep everything together, in spite of occasional missteps. We have modified the plan, as follows :

*The individual roster.* Each child is given an accurate, detailed, individual roster with room numbers, subjects, teachers, for each period of the day. The planning of the master roster takes all the time of an expert teacher for about two months each term. The planning of individual rosters requires all the time of the whole faculty for about a week each term. I am telling you this not because it is interesting, but in order to make you realize that if the Dalton Plan can be modified to meet these conditions, if it is successful here, then nowhere else in the world need it fail.

*Following the roster for the first month.* The first few weeks of each term, all "follow their rosters." This means that each pupil reports regularly to each of her classroom teachers and to her student adviser every day, without any "time freedom." A typewritten assignment is given in each subject to each pupil. All the classroom time is devoted to supervised study. For the freshmen, this means working with them as a group, stopping whenever a weakness is disclosed, to give more practice material, whether it be needed to make them more expert in using an index, a table of contents, a dictionary, an encyclopedia, or other reference book ; or in getting the meat out of a paragraph ; or in discovering when and how to drill themselves ; or in using other tools than books. In point of fact, all high school students need some such practice, not only with each new subject, but also before continuing the old. They need, too, to discuss with each classroom teacher the proper

budgeting of time for her subject, in spite of the fact that "budgeting" is definitely assigned to the student adviser.

When finally "time freedom" arrives, the teacher has a better line on what her pupils can do and what they know. Besides this, the children have been prepared, practically, to use their time wisely. They may use the subject classroom whenever they need help from the teacher, or its special equipment; the library when they need its books or the librarians; the study hall, or any vacant seats in non-conference rooms, when they are ready to go on by themselves.

*Following the roster for the first two and the last three days of each month.* The last three and the first two days of each month, the children again "follow their rosters." This is done to make it easy for the teachers, within school hours, to give each child his grade. As usual, an unforeseen and valuable by-product has resulted from this procedure. The grade given in the presence of the child automatically becomes less the symbol and more the real thing.

This "follow the roster" regulation also gives each student, each student adviser, and each classroom teacher adequate opportunity to know whether it will be better to concentrate for a day or two on the unfinished assignment, or assignments, or whether instead, the girl ought to go on with new assignments wherever the previous one is finished, definitely planning when and how to finish the one in which she is still behind. Sometimes it is obviously better to defer the subject for a term, so that the student may have extra time to give to a smaller number of subjects. Difficult cases are referred to the counselors. There are three of these, all, before specializing in guidance, experienced

and successful classroom teachers. One, a trained psychologist, visits every home, at least once. The second is the roster maker, familiar with every detail of organization and of the curriculum. The third is the vocational counselor, in charge of placement. The three work together very effectively.

*Putting a child on roster for special reasons.* Any teacher of any subject may put any child "on roster" for that subject, if she feels that it will be better for the child. The student adviser, or any of the educational counselors, may put a child "on roster" in all subjects.

This is the greatest disgrace that can happen within the school. In a year, not more than two per cent have been so dealt with. The cure for abuse of liberty is more liberty — that we realize. But, with our army, in the relatively brief time that they are with us, we have not quite had the courage of our convictions.

*Distribution of conference and laboratory periods.* Conference may be called any day, for any subject, and for any period of time, from five to forty-five minutes, without possible conflicts. This is because the roster gives each teacher non-conflicting hours any day, for each group that she teaches. A teacher who has not yet adjusted herself, who has not yet learned how in her assignment to take all the intermediate steps that are necessary in order to help the child to help herself, may, therefore, call the more numerous conferences that she thinks she needs. Some subjects sometimes require additional conferences; for example, literature, social science. It is of great value to the students to be able, in a socialized recitation, to discuss freely what they have read. You will notice in some of the assignments that definite provision is made for these longed-

for events. The girls are told when they ought to finish a certain volume, in order to be ready for the discussion, and they are advised which work may be postponed in order to get extra time for reading, should it be necessary.

The same thing is true in social science. Among our students are the children of many extreme radicals. It is of the utmost importance that they should not be bottled up, as, I am sorry to say, most of the textbooks attempt to do. On the other hand, it is also of the utmost importance that they should learn to suspend judgment, to examine evidence critically, and to listen calmly to the opposite side. For these reasons open forums are often scheduled for the discussion of such subjects as the child labor tangle, the place of the family, immigration, conservation, shorter working day, wages and the standard of living, poverty, unemployment, the tariff — regardless of the fact that another conference may need to be called the same week. The following incident may illustrate the value of such discussions. The question was: *If our student association were considering the adoption of the referendum, would you be in favor of it?* Many of the children said yes, advancing stock arguments, evidently without much thought, thinking it the right thing to say. Then a still larger group began to think and to object: "We must not make figureheads of our elected representatives. We would work for things that we happened to want at the time; many things that we do not want are good for us. Take the Dalton Plan, for example. If that had been put to a referendum, it would never have been tried — nor one-way traffic, nor lunch-room seating." These were some of the intelligent objections made, as mind played upon mind, in the personal application of the principles involved.

*Provision for completing unfinished assignments, including restoration classes.* We do not insist that all assignments must be completed before any new ones can be given out. As was indicated above (p. 28), each case is treated individually, as nearly as possible. For the February term, we provided *restoration classes*. The summer high school solves what else might be problems in September.

The restoration class is our attempt to solve a difficult problem which arose at the end of the first term's trial of the Dalton Plan. Allowing the children to proceed at their own pace resulted, of course, in many incomplete assignments at the end of the term. Manifestly we should have defeated our own purposes if we had considered such cases as failures and compelled the child to repeat the work. But the problem of managing such a complex situation as their rosters presented was a serious one.

Partly for the sake of simplifying the matter, but sincerely for the good of those concerned, the whole school accepted the ruling that any child retarded more than a month must accept defeat. This meant non-promotion in the subject. It meant, too, that probably another term would be required for the completion of that term's work. This ruling was not made abstractly, but was the result of our honest opinion of what was good for the children affected by it. In nine cases out of ten the individual teachers felt that girls who were retarded over one month would be better equipped for future work if they remained in the same grade, working in a leisurely way instead of attempting to speed up their work.

That left for restoration a fairly large group of girls a month or less behind the mark of completion. For them in each major department and in each form of the work

where the numbers made it possible, small classes of about fifteen were formed. These groups met five periods a week, instead of the usual four. They were allowed no time freedom. The object of these classes was to complete in five months the work of six; this is, to finish the final month's work of the fall assignment and the whole of the spring assignment. The only things that made this possible were; the fact that the classes were small enough to enable the teachers to give personal attention to each child, the fact that they met more periods than the other classes, and greatest of all, the fact that the girls for the most part were determined to accomplish the seemingly impossible.

At the end of the first month the restoration teachers took account of stock. Any girl who by that time had not completed the assignment for the last month of the previous term was forthwith demoted. This was necessary in only a few cases.

At that point the restoration class became a class in the advance work, under the necessity of completing five months' work in four. Their ability in following terms to master the work and to keep the pace required for completing the term's work in the term will be a clearer indication of the success of the restoration class.

At the end of the spring term, summer school provided opportunity for restoration work. This fall term we are scrutinizing the work of the girls who were restored by this forcing process with a view to improving on our first experiment. Obviously the ideal solution would be to allow each child ample time to finish the term's work at her own pace, but the complicated organization necessary for such an arrangement is clearly out of the question in a large and overcrowded school.

The chief recommendation of the restoration classes was that they succeeded in many cases in teaching the children what they had failed to learn before ; namely, how to study.

If in these chapters, and those that follow, we have seemed a bit dogmatic, it is only a gesture, indicating a strong desire not to becloud the main issues. Our experience with the Dalton Plan is quite similar to that of all who have tried it. It is continually disclosing new freedoms, new possibilities. Our own technique is steadily improving. Each month we are able more easily to help each girl to learn in accordance with her own abilities, at her own rate of speed. We can see in them rapid development, a keener sense of responsibility, greater initiative — yes — and a larger accumulation of cold facts, even. And yet I think that we shall never quite standardize our assignments, our check-ups, our tests, our methods. For we are teaching living adolescents, in a growing world, and we — we the teachers — are alive and developing, too. Education is no longer a ritual — true education never was. It was and is a glorious adventure.

## CHAPTER V

### THE DALTON PLAN IN ENGLISH

**Advantages of the Dalton Plan.** One must begin the organization of the Dalton Laboratory Plan in any department with the conviction that none of the practices which have proved valuable in teaching should be abandoned, and that many of the seemingly insuperable obstacles which have tormented the past will automatically disappear.

For instance, there is balm in the thought that one need no longer send pupils home to do their real studying at the end of a long day, with necessarily little time and probably no adequate equipment. The Dalton Plan expects a great deal of the assigned work to be done in school: in the subject laboratory (we like the word), in the library, or in the study hall. Many pupils, however, work at home also, because they "get started and like to finish."

Again, teachers have always lamented the fact that pupils rarely take assignments with care enough to enable them to go to work with precision and celerity. Be it whispered that teachers have been known to forget to give an assignment, or perhaps to hurl it vaguely at the class as the last bell was ringing. There is obvious advantage in putting, without fail, into each child's hands an assignment which shows the extent of work to be done through several lessons, and which represents the plan, not of one teacher, but of several teachers doing the same grade of work. Such assignments are not only the first step in securing good work

from the pupils who attend regularly, but they automatically provide for the absent pupil or for the substitute teacher.

**The assignment.** *Method of preparation.* The assignments given below were prepared by committees of teachers in the English department. In order that the same general point of view might be maintained, the head of the department acted as a coördinating factor. Each teacher assisted in making the assignments for one of her classes. For her classes of other grades, she used the assignments prepared by other groups in the department. Instead of finding it hampering to follow plans made by others, the teachers were unanimous in agreeing that there are no undue restraints on their own methods of procedure. Each one is free to introduce her subject and to manage details of development in her own way, and the ready-made assignment is merely a welcome saving of time.

*Principles by which the work was tested.* In preparing the assignments the teachers kept in mind certain principles. In accordance with these principles and in the light of experience the assignments have been rigidly tested and constantly revised.

It is essential in the first place that the assignment reflect the interest which a skillful teacher stimulates in every encounter with her classes. It must kindle a desire in the pupils to do the work, and not create the feeling that a dull mountain of labor has been heaped in the way. For that reason the assignment can rarely be merely abstract references to pages or exercises. Instead, as in the following bit from 9 A literature assignment in the *Arabian Night's Entertainment*, the attack is directed to the contents, to the significance of the stories.

Look through the table of contents to see if there are any stories that you have heard before. As you read, try to picture the splendor and richness of the scenes. You are required to read only those stories listed below. Read as many others as you can.

1. In the first few pages, you will learn how the stories came to be told. As you read through the stories that were told to save the merchant's life note how many supernatural beings you meet. Are these creatures like the supernatural ones you met in the Greek stories? As you read on, notice how the Arabian ideas of the supernatural differed from those of the Greeks.

2. "The History of the Fisherman" is most curious. As you read, note how the fisherman outwitted the genie and what his immediate reward was. Do you think the King of the Black Isles deserved punishment at the hands of the Queen? How was the Queen properly punished at last? Prepare to answer these questions orally in conference. One period.

A bit of discussion and guidance here makes a difficult first chapter easier :

1. *Ivanhoe*. General conference. The first chapter of *Ivanhoe* is not easy reading, but do not be alarmed; it is typical of the clash between the Norman nobles and the Saxon serfs in England at that time. Recall the history of the time, but don't expect to find the novel always historically correct. Pause in your reading to think things over, especially at the end of Chapter IX and Chapter XXII.

2. Become acquainted with the people as soon as possible; try to decide your preferences. Make an effort to understand about the clash of ideas because of the difference in the nationalities. Take notes regarding the various people represented in the book; become thoroughly acquainted with a character from each class. Notice Scott's descriptions.

"Pivotal questions," illuminating comment, comparisons which help to build up a background of organized thinking not only stimulate interest but also provide useful direction for reading :

Another novel you will read this term is the *Vicar of Wakefield*. In some ways it will make you think of *Cranford*. Goldsmith has

that same quiet way of laughing at life, but he laughs at himself, too. In addition to the questions suggested for the other novels, discuss the following :

1. How did a sense of humor help Dr. Primrose?
2. What do you know of country life in England in the 18th century from reading this story?
3. What dreadful abuses existed in the cities? If you jot down notes on questions 2 and 3, you may find them helpful later. This is your first taste of 18th century life. Note any striking likenesses between then and now; note also any striking differences.

(1) Interest in tone. The tone of the assignment is important. It should be sincerely interesting, not just "sugar-coated." The interest must be integral and not merely ornamental. The following 10 A assignment establishes a natural connection between *Hugh Wynne* and the children's environment :

*Problem I:* This book is especially interesting to all Philadelphians. In your first conference with your teacher and class, be ready to give any information you have about old Philadelphia; its history, its streets, its people, and their lives. As you read the book keep a list of the places mentioned: as Hugh Wynne's home near Dock Creek and Walnut Street, the prison at Sixth and Walnut Streets, and the Wister House. Do you know what these places look like today? Special credit will be given if you visit some of them and write a report on the "Then and Now" of them.

*Problem II:* This may be the first book you have read that is written in the first person. In a few places where Jack Warder's Diary is quoted, the "I" is Jack, otherwise the "I" refers to whom? Chapter I is considered by some people to be less interesting than the rest of the book. But in it is the key to much that follows later, so don't be tempted to hurry over it.

Hugh's mother is said to be one of the loveliest mothers ever pictured. Try to see her as she sends her little son off to school.

When you have finished Chapter X, write your name on the board for a conference with me. I will ask you to discuss some one of the following topics with me :

A. Give a word-picture of Hugh's mother and of his Aunt Gainor.

B. What part has Hugh's cousin Arthur played so far? Do you like him? Why?

C. Can you picture the meeting scene given in Chapter X? Imagine yourself in Hugh's place. Did his father have any justification for treating his son so?

*Problem III:* Chapters XX-XXI. Follow the different threads of the story:

Hugh as a lover

Hugh as a son

Hugh as a soldier

What characters that you have met before in history do you meet again here? Do they seem more real here than they did before?

(2) Provision for socialization. If we are to retain the practices that have proved valuable in our teaching before the adoption of the Dalton Plan, we must see to it that our assignments provide opportunity for socialization. Plays lend themselves naturally to small, social group work; the opportunity has been provided in this assignment on *Hamlet*:

Recall the other Shakespeare plays you have read. Which were tragedies? *Hamlet*, too, is a tragedy. What is your understanding of the term as applied to a play? Your teacher will probably have a class conference before you begin your first reading.

As you read the play over to yourself, try to picture the setting and the actions that accompany the words. Read in *groups*, whenever possible assigning the parts.

Simple classroom dramatics, popular from the 9 A to the 12 B classes, are a sure way of getting the story over. Here the invitation is given:

After you have finished reading the *Paradise of Children* find at least three other girls who have finished and plan to dramatize the story in a conference period. Be sure your audience will understand:

1. What Pandora's chief fault was.
2. How she was punished for her disobedience.
3. What promises Hope gave. One period and one conference.

The really social atmosphere can be created by stimulating and training the children to criticize one another intelligently, and by encouraging the giving and accepting of legitimate help. These typical assignments make definite provision for just such devices, and the time freedom of the Dalton Plan allows their operation :

1. Write a three-sentence theme telling what you admired most in one of the characters you have read about in your literature this term. When your paper is finished, consult some classmate. Make any corrections she suggests that would improve your work. Keep your paper and bring it to the next conference.

2. Suppose that you have been graduated from school, and have been working for some time. You wish to change your position. Write to Miss Nock, talking over the case frankly with her, and telling what sort of position you are seeking.

When you have revised your letter until you feel sure it is your best, ask a 12 B girl near you to read and criticize it frankly. If you do not see the justice of her criticism, refer the question to another girl, to your source-books, or to me. Then report for an individual conference.

Three lessons — approximate time to be spent on assignment.

(3) Provision for individual and group planning. In a good assignment there must be provision for individual and group project planning, in order to permit extended thinking and coöperative effort. A real situation is of course the best motivation for a project ; it can be as simple as this 9 B composition plan :

Write, in your best style, an invitation to a party, or any pleasure trip that you have planned ; write to a friend or some relative. If there is any other kind of note that you would prefer to write, do so,

and if you desire to send it through the mail, do so, after you have handed it to your teacher in an addressed envelope.

The reality of the situation back of this 12 *B* project in business letters probably accounted for the actual success. The girls who chose No. 1, succeeded in collecting \$80. One grateful father gave his daughter a bonus of \$20, and the tribute, "That's some course you're taking."

Choose 1 or 2.

1. Has your father or brother any "bad bills" he would like us to try to collect? Ask him to give us the necessary data. Form a small group of girls to talk over the problems presented in each case. Let each girl write the letters; then select the best, which will be mailed. Repeat the process, until you get results.

2. Write letters 4 and 5 on page 198, Opdyke and Drew. Be sure that you really appeal to the sense of justice in one and to self-interest in the other. Discuss the letters with me before you type your final copy.

Approximate time, six lessons.

It is possible, and from many points of view desirable, to use the preparation of the assignment itself as an opportunity for project planning. This assignment was planned by a 12 *B* class.

The committee appointed by the class presents this plan for the study of *Hamlet*. As far as possible your suggestions as to procedure have been adopted.

We are planning to finish this work in six lessons. The play should be read before the first conference, which will take place May 25.

#### UNIT I (one day)

To understand and enjoy *Hamlet* thoroughly one should know something about Shakespeare and his time. Do you know how the stage conditions influenced the play?

John Barrymore is just one of the famous interpreters of Hamlet, Prince of Denmark. Do you know any others?

Report to the chairman the topic in which you are especially interested and upon which you wish to report.

On the table in the back of the room are the books which you have brought in to be used as references.

Those not interested in making reports may have group discussions on the play. Below are some comments on the play and its characters. What do you think of them?

1. "The tragedy of *Hamlet* does not lie in the fact that it begins with a murder and ends with a massacre; it is something deeper, more spiritual than that. The most tragic, the most affecting thing in the whole world is in the ruin of a high soul."

2. "Hamlet is a man of sensitive temperament and high intellectual gifts."

3. "Polonius — a played-out state official, vain and slow-witted, pottering words of wisdom."

A 10 B class took great delight in preparing their own assignments for June. Such class planning can best be done after the class has had considerable experience in following assignments prepared by the teacher. This plan provides work for three weeks, with one period of composition and three of literature per week.

#### I. COMPOSITION

A. First week — June 4: This period will be devoted to impromptu talks, given in groups of five or six. The topic for the talk will be selected from a list read that day.

B. Second week — June 11: A composition, written at home, on any subject which interests you particularly, will be brought to conference on June 11. Plan to limit your reading to three minutes.

C. Third week — June 18: We will have group or individual pantomime from any book we have read in either 10 A or 10 B. The members of the class will guess which scene was given in the pantomime. List of books suggested: *Lorna Doone*, *Cranford*, *Ivanhoe*, *Pride and Prejudice*, *The Virginian*, *Hugh Wynne*, *Midsummer Night's Dream*.

## II. LITERATURE

A. First week — first period: If you have not already read *As You Like It*, read it for conference, June 1. Ask for explanation of points difficult to you. We shall discuss characters, plot, etc. Second and third periods will be used for the selection of scenes, characters, and chairman for dramatizations.

B. Second week. This entire week will be devoted to rehearsals.

C. Third week. The unused periods left this week will be used for final rehearsals and for the performance of the play in class.

The two assignments which follow form an interesting group. The first was a class project of an 11 B section. The second is the assignment prepared by the teacher for the same month's work. The pupils did not see this assignment before beginning their own project. They were merely told that the literature for the month was the reading of *Julius Caesar*. For composition they were free to plan whatever type they considered most necessary for themselves.

## CLASS PROJECT

I. Literature: The last book we shall read this term is *Julius Caesar*. We shall want to read the play through once to get the drift and meaning of the story. We should have finished this phase of the work by May 28. We shall then have two conferences for a general discussion of the story and the characters.

In our six other conferences, we shall read aloud and dramatize those parts of the play that appeal especially to us. At the end of each conference will be announced the part of the play which shall be read at the following conference. This plan will enable those girls who need it to polish up at home as to meaning and expression.

When we have become acquainted with the various characters in the play and have learned what their actions had to do with the plot, and when we have learned to understand and appreciate the poetry, we shall have accomplished our purpose in reading *Julius Caesar*.

II. Composition : Following are a number of composition assignments from which you may make your choice. Three of them must be completed satisfactorily before June 19. You will have two periods a week for composition. If you feel you need extra practice in writing, do more than the minimum assignment.

A. Painting word pictures is considered by some persons the most interesting of all composition work. If you are one of these, you will be interested in describing one of the following :

1. *Ice Skating on the Lake.* Can't you see the swaying figures, the bright colors of the skaters' garments, the sparkling eyes, the ruddy cheeks? Can't you feel the tang of the air, the stinging wind in the face? Of course you can, and if you enjoy painting word pictures, you will want to write about it. Won't you?

2. *Out in the Storm.* You may picture yourself or somebody else out in the storm, on foot or in a machine. Imagine the flashing of the lightning and the roaring of the thunder and then I am sure you will be eager to put pencil to paper and tell us of your experiences.

3. *A Trip through the Mountains.* This may be imaginary.

4. *Description of a Famous Person.* A moving picture star.

5. *Your First Party.*

6. *Rowing on the Lake.*

B. Following are three topic sentences. Write a paragraph using one of them as your topic sentence.

1. There was an explosion at the factory yesterday. This is how it happened.

2. "Fire!" The cry rang out in a clear but startled voice.

3. "He is drowning. There is no hope of saving him," predicted the spectators mournfully, as they watched the figure rise to the surface of the water and then sink once more.

C. Exposition work. Explain fully one of the following :

1. How to Make a Dress

3. How to Make Fudge

2. How to Make a Heater Fire

4. How to Play a Game

D. None of us can get too much practice in letter writing.

1. Write a letter of congratulation to a friend, congratulating him or her on some success he or she may have achieved — a success in business or a promotion to a higher position. Or, you may pretend you have received an announcement of a friend's engagement and send her a letter of congratulation.

2. Write a letter of condolence, expressing your sympathy and regret for the death of a friend.

3. Write an invitation to a party.

4. Write a letter applying for a position.

E. Optional.

1. Make a book report on any book you have read outside of school. Make it so vivid and real and interesting that we shall all be eager to read the book.

2. Write an account of one of the poets or prose writers of the romantic period. Some of the poets were Scott, Lord Byron, Robert Southey. Some of the prose writers were Charles Lamb, Thomas de Quincey, and Jane Austen.

#### ASSIGNMENT PREPARED BY THE TEACHER

I. Composition: Each girl will be responsible for both the oral assignments. In addition, any girl who has not done satisfactory written work may be required to write one or more compositions on subjects assigned by her teacher.

Nobody likes to listen to a story, no matter how good it is, if it is haltingly told. Here is your opportunity to practice telling as interestingly as you can something that has happened to you or to some one else. Do you know what an anecdote is? Find out, and prepare to tell one to the class.

Prepare to talk to the class informally on some subject that you think will interest them. Remember that you must be interested yourself; therefore, choose a topic that you really care to talk about and try to communicate your enthusiasm to your audience.

II. Your literature for this month is the play *Julius Caesar*. After your first conference, in which you will be given the book, take the play home and read it through once, rather hastily. Try to get from this preliminary reading two things: first, a general idea of the story or plot of the play, and second, an opinion about the main characters.

As you read, keep in mind the fact that in a play, the author has no chance to comment on his characters, or to explain the events. You have to depend for your information on what the people in the play tell you in their conversation about the scene, the events, themselves, and one another. Be careful not to accept, without thinking

for yourself, the opinion of a man's enemy about him. Does a soliloquy give a fair idea of a man's motives and character?

Plan to read the play through in the first week. The first two periods of the next week will be class conferences for general discussion of the play. Be ready to ask questions about any parts you do not understand, and also be ready to discuss the principal characters.

After these two conferences, the class will divide into five groups, one for each act. Each group may select one scene for fine class reading. In preparation for that, you must work over all the lines carefully, discussing the meaning and practicing effective reading. When the scenes are ready, we shall hear them in general conference.

This cutting from the school paper shows something of the pride the girls took in managing their own assignments. The assignments prepared in this way were carried out with a special degree of zest.

### CONTRACT-MAKING NOVEL ART FOR SENIOR GIRLS

*By Bessie Savar*

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With Mollie Orloff as chairman, appointed by the teacher, and a committee of six girls nominated by the class, including Barbara Halfpenny, Bertha Pasternak, Regina Rainville, Mildred Stern, Pauline Cohen, and Bessie Savar, the fourth hour English Class have formulated the "Hamlet" assignment for their class this term. This contract, like all the other contracts, made by the teachers, was mimeographed in the office and distributed to the girls.

The committee outlined the contract and submitted it for the

approval of the class, which unanimously accepted it as 'it stood without making any amendments. The contract as outlined was :

Conditions in the Age of Hamlet — report.

Famous Actors and Interpreters — report.

Discussion of Characters.

Significant Passages Interpreted.

Dramatization.

After the teacher had chosen an appropriate introduction from among those submitted by some members of the committee, the contract was sent to the office to be mimeographed.

Judging by the eagerness and enthusiasm shown by the girls in coöperating with the committee and volunteering for reports, this rather novel idea in the art of contract-formulating may prove to be the basis for all future contracts and will probably enlist the enthusiasm of future classes in carrying them out.

(4) Detailed guidance in technical English. In preparing any assignment, whether oral or written, the teacher is conscious of specific aims. In technical English the goal is the acquirement of certain skills and habits. The written assignment, providing as it does the opportunity for detailed guidance, has a double advantage over the oral assignment : it is in the hands of the child at the particular moment when

the help of its suggestions is needed ; it provides a series of problems, in orderly sequence, all working toward the same goal, a goal which the child has had in view from the beginning. In the following assignment for 9 *A* word study the immediate and final aims are definitely stated in the beginning. Throughout the detailed planning of the problems which follow, reference is made now and again to the goal which lies before the child. Such obvious reminders are particularly necessary to the younger students.

#### INTRODUCTION TO THE COURSE

Immediate aim : improvement of speech and writing, not only in English, but in every subject.

Final aim : fluent and correct use of the English language, the "mastery of words."

Have you ever asked other people the meaning of unfamiliar words, or, worse still, gone without the information rather than consult the dictionary? Was your avoidance of your "best friend" caused by your not understanding various "queer" marks and symbols used within it?

This term we shall try to find in word study the magic key that will unlock all dictionary difficulties. We shall cease to be hampered by poor spelling, incorrect accents, and uncertain word choice. The dictionary habit will be an "open sesame" (You remember *Ali Baba and the Forty Thieves*) to successful work, not alone in word study, but also in every school subject.

Problems :

I. Conference to develop dictionary skill. If the dictionary is to teach you to know and to use words, what information must it contain? List all your ideas. Now, open your dictionaries to see how nearly correct your list is. Complete it. Notice all you can about the contents and general arrangement of material. (One day)

II. In what order are words always arranged in the dictionary? Do you know your alphabet? Turn to p. 5 in Arnold's book. Read it. What is meant by complete alphabetical order? Now, write (1) the names of all your subjects this term, (2) the titles of five

books, in complete alphabetical order. Try any column under exercise 2 on p. 6 (Arnold). When you have finished, exchange papers with a neighbor for correction. Where is alphabetical order always used? (One day)

III. You remember that clear speech is one of our aims. Have you ever heard or come across in newspaper comic sections expressions like these:

He ought'a gone yisterday.  
 Lem'me jist go to the lib'ry afta school.  
 He's goin' t' come Sat'day.

Read Lewis and Holmes, p. 6, to find the rule that mistakes of this kind abuse. Give the correct form for each of the above statements. Read carefully pp. 2 and 3 in Lewis and Holmes. What is the difference between vowels and consonants? How does the dictionary represent vowel sounds? What term is given to them? What is phonetic spelling?

Your teacher will help you in conference to understand the dictionary key (pp. 4 and 5 in Lewis and Holmes). Learn to know and to mark the long and short sounds of all vowels and the middle or intermediate, and Italian *a*. (Refer to pp. 41-46 in Arnold.) Mark the long and short vowels on p. 48 (first exercise). Exchange paper with a classmate for correction. Practice with her the following sounds:

<i>a</i> as in half	<i>ew</i> as in new
<i>a</i> as in fast	<i>au</i> as in aunt
<i>au</i> as in laugh	<i>ing</i> as in going, coming
<i>u</i> as in just	<i>ture</i> as in literature
<i>ow</i> as in down	(Two days)

IV. In Lewis and Holmes, Chap. I, what word is associated with enunciation? The first step in pronunciation is syllabication. Define and pronounce it. Read p. 7 (Arnold). What is the difference between a monosyllable and a polysyllable? Turn to p. 131 to find what a *digraph* is. Learn an important rule for dividing words in syllables. Divide into syllables the first two columns of exercises 3, 4, 5 on p. 8. Compare your results with your neighbor's. (One day)

V. The second step in pronunciation is *accent*. What does the word mean? How does the dictionary indicate accent? (Arnold,

p. 9.) Be able to distinguish between the primary and secondary accent. Be able to do orally or in writing the exercise on pp. 11 and 12. (One day)

VI. Look up and mark the accents :

theater	ally	illustrate
address	superfluous	mischievous
influence	recess	interesting

(One lesson)

Be ready to pass a written test on work done so far.

*Optional:* Select any ten words from lists on p. 47 in Arnold and mark vowels in one, syllables in another, and accents in the third.

In this 10 A assignment in outlining, the sequence of eight problems makes clear the logical plan of an extended unit of work.

#### OUTLINING

In learning to write paragraphs this term, you have found that before you can write you must plan or organize your work.

Sometimes a plan is very simple. For instance, if you were planning a trip from here to San Francisco your plan might only be :

Philadelphia, — Pittsburg, — Chicago, — Denver, — San Francisco. Here you have merely a "running plan"; *i.e.*, a series of names arranged in order, separated by dashes.

I. But in writing we usually need a fuller and more formal plan. In Lewis and Hosis, p. 217 (section 77), you will find two plans. Study pp. 217 and 218 carefully.

II. From the illustration given in the lower half of p. 218, and from p. 178, paragraph 6, you can study the correct method of punctuating an outline. Be sure that you use this method in your outlining.

III. You will probably need a conference with your teacher at this point to discuss more fully correct methods of outlining.

IV. Write to hand in, an outline of some one of your lessons for the next day.

V. Lewis and Hosis, pp. 38 to 41, deals with paragraph outlines. Read pp. 38 and 39 very carefully. Study the suggested outline (pp. 39, 40) of the first paragraph.

VI. Try to outline the other paragraphs yourself. Go over your plans with those of one of your classmates. On p. 40 there is an outline that may help you with this work.

VII. Outline paragraphs for any four of the topics given on pp. 40, 41 or of the following:

- A. Tricks should always be tempered with common sense.
- B. The tramp was the most forlorn creature I have ever seen.
- C. Everything went wrong that morning.
- D. From the summit of the hill they saw the sun set.
- E. When the flames were out, we saw how great the damage was.

VIII. A test on outlining.

The material in one assignment is frequently made from several different textbooks, plus original material provided by the teacher. In this 12 A short-story assignment the goal is kept clearly before the pupil's eye throughout the successive problems.

Trying to use what you've learned. (Three days)

Now try your hand at writing a story more effectively and interestingly than you ever have before. Review the points brought out in this chapter before you begin. The little anecdote on p. 207, the questions immediately after it, and the last paragraph in that section will recall to you another writer already studied under Description, but just as valuable in Story Telling.

There are a number of suggestions, you may use any subject — not necessarily one of these. You will probably do best if you write from your own experience. Give your story an interesting title. This story should not cover more than two sides of a sheet of paper.

A Marketing (or Housekeeping) Adventure

An Amusing Mistake

A Strange Guest

My Mystery Story

An Interrupted Adventure

NOTE: Before you copy your paper for handing in, get the criticism of a classmate. The critic should tell you how she thinks you have succeeded in each of the matters discussed in the chapter. Hand in or bring to conference, as your teacher may prefer. (Four days)

You are responsible for three more stories. In the next, make an effort to use what is called "indirect description." You will find, by examining good short stories, that we are made to see people not so often by solid paragraphs of description as by little phrases inserted between the speeches in a conversation. A character's gestures and facial expression, significant details of dress, of the surroundings, are introduced "by the way" as the conversation moves on. We thus not only hear the speakers, but see them and their surroundings. This is known as "indirect description." Try it.

Others of your stories, none too long, might well be attempts at some of the types of story found in your reading, as stories of character, stories of local color, fanciful or fantastic stories.

These stories need not be written one after the other. Some of the following assignments may be inserted between them :

(Three days)

The oral telling of an anecdote, incident, or story.

A letter of thanks to Mrs. Gardiner for the use of an orchestra ticket.

A business letter ordering a book or magazine. Get the criticism of a group of your classmates before copying this letter to hand in.

(5) Suggestive guidance in literature. In literature where the aim is the cultivation of appreciation and ideals of conduct, there must be sufficient guidance but not too much detail. There is need for special care in the preparation of these assignments in order that there may be sufficient latitude for genuine personal reactions on the part of the pupils and at the same time provision for training in thoughtful, understanding reading. The older girls can read with but few detailed questions for guidance. This 11 B assignment is suggestive rather than detailed :

The aim of our work in literature for the next few weeks will be to learn to love and appreciate the poetry of the early nineteenth century, or of the romantic movement. We shall read particularly the poetry of Burns, Wordsworth, Shelley, and Keats. As most of

us really have to *learn* to love poetry, we shall plan to do most of our reading, in the beginning at least, in conference. As you become more accustomed to the language of poetry, you will be able more and more to work individually or in small groups.

You may wish to read all of the poems included in your collections. Be sure, however, that your reading include the following poems, for these are so well known that any student of the romantic movement should be acquainted with them.

Burns: To a Mouse, To a Mountain Daisy, The Cotter's Saturday Night, Man was made to Mourn, A Man's a Man for a' that, Ye Banks and Braes o' Bonnie Doon, To Mary in Heaven, Highland Mary, John Anderson, My Jo.

Wordsworth: The Solitary Reaper, She Dwelt Among the Untrodden Ways, She was a Phantom of Delight, To a Skylark, The Daffodils, and two or three of the sonnets.

Shelley: Ode to the West Wind, Ozymandias, To a Skylark, The Indian Serenade, Love's Philosophy, The Moon.

Keats: The Eve of St. Agnes, Lines on the Mermaid Tavern, Ode on a Grecian Urn, Ode to Autumn, Ode to a Nightingale, On First Looking into Chapman's Homer, La Belle Dame Sans Merci.

In addition to the class discussion of poetry, you will need to practice both oral and written interpretation. Select for yourself each day a small unit, two or three lines, and try to express it in your own words, briefly and beautifully. Bring to conference your attempts and compare them with those of the other girls. Remember that the first essential thing for interpretation is a *clear understanding of the poem as a whole and of the meaning of all the words*.

Poetry, particularly lyric poetry, is a very personal expression. Therefore, as we read together, or as you read for yourselves, try to find in each poem a glimpse of the man who wrote it, his interests, his emotions, the peculiarities of his personality. You will find that these four poets, although they have some things in common, are very different in many ways. You may wish to learn more about them than you can from reading their poetry. Extra reference books for this material will be available in the library or in the classroom.

These general suggestions were sufficient for 12 *B* girls for a term's work on the familiar essay and the poetry of Browning.

### I. Familiar essays.

In the conference with which we shall begin this work, you will learn what we mean by a "familiar essay." A glance at the table of contents in the various collections of essays in the bookcase will show you the variety of subject dealt with in this type of writing.

Read the essays which will be suggested to you in conference; read any others which catch your eye. Learn to know some of the well-known writers of the familiar essay, especially Christopher Morley, Stephen Leacock, and Agnes Repplier.

Your last written work for the term will be a familiar essay. It is to be handed in on May 19. You may choose any subject which you feel you can handle well. If you like, you may choose one of the following:

On being an Old Maid	The Vicissitudes of the Dalton Plan
Inheriting "Hand-Me-Downs"	Are Dogs More Human than People?
On Taking Examinations	When My Ship Comes in
	Are Teachers People?

### II. The poetry of Browning.

Before you begin reading Browning, your teacher will call a conference. Think back over the poetry of 11 *A*: Pope, Goldsmith, Gray; 11 *B*: Burns, Wordsworth, Shelley, Keats, Coleridge; 12 *A*: Tennyson.

Be ready to discuss briefly at the conference the outstanding characteristics of the various poets and periods.

Which poet or poets do you like best? Why?

Browning's work belongs in time with that of Tennyson, in the latter part of the nineteenth century. After the conference with your teacher, go ahead with your reading. Be sure to include the following poems in your list:

The Pied Piper  
Hervé Riel  
Pheidippides

Instans Tyrannus  
Home Thoughts from Abroad  
The Italian in England

Cavalier Tunes  
Home Thoughts from the Sea  
Songs from Pippa Passes  
The Lost Leader

Up at the Villa  
The Patriot  
One Word More  
My Star

### Prospice

Do not restrict yourself to the poems mentioned. You may find others you like better. When you have read enough to do so intelligently, justify, qualify, or repudiate the following statements about Browning and his work: *a.* "Browning, like all great poets, knew life widely and deeply through men and books." *b.* "The trait in Browning which appeals most is his strenuous optimism." *c.* "In brief, Browning accepts life as it is and believes it good, piecing out his conceptions of the goodness of life by drawing without limit on the hope of the other world." *d.* "He was the poet of men's souls." *e.* "He has, however, some nature description so exquisite that English poetry would be the poorer for their loss."

The amount of detail necessary depends partly on the age of the children and partly on the type of literature. *Macbeth* even for 12 *A* classes requires detailed guidance. This assignment worked particularly well

In this play Shakespeare gives us two great portraits drawn with a master hand. As we read, we shall see Macbeth and Lady Macbeth as living personalities. We shall watch the working of their minds, read their innermost fears and hopes, know their motives, their strength, their weakness. If we can see these characters as Shakespeare meant us to, we shall readily understand why, for three hundred years, the greatest actors and actresses have rejoiced to play these parts and thousands have delighted to see them played.

There follow, here, some suggestions for studying this play. Your teacher will arrange conferences and tell you how much she expects you to have prepared for any conference; you may plan your own time, however, remembering that preparation means readiness to discuss the play from the standpoints indicated in the suggestions following. These are the best means of attaining an understanding of the play. Use the same ones and others, if possible, on the next

part. Refer to them constantly. Use them. Use as many as apply to the part of the play you are working on. Prepare about two acts the first week and two the second week.

### I. Suggestions.

A. For understanding characters. Notice any revelations of character in what a character says to others; to himself; if there is a difference, account for it. Notice what others say about him. Notice what are the reasons behind his actions, always asking yourself, "Why does he do this or say that, or feel thus?" For example: Why did Macbeth hesitate to commit the murder? Why were he and Lady Macbeth unhappy as king and queen? Why did Macduff paint so black a picture for himself — of himself — to Malcolm? The answers to such questions are usually to be found in the character's own words, if you fully understand them. Notice any specific indications of strength; of weakness. Notice any contrasts with other characters. Discuss the characters with one or more of your classmates. Know where to find the lines that give you your understanding of a character.

B. For understanding the plot or action. Notice which scenes advance the story and which serve some other purpose. Notice the steps by which Macbeth wins success in his plans. Notice the first incident that suggests failure to come and the steps by which his final downfall is brought about. What part do the witches play in the plot? Know the prophecies made at the second interview. Notice what incidents in the play give rise to further action, or have important consequence. Notice how the witches, in the latter half of the play, "palter with us in a double sense," as Macbeth says, and "keep the word of promise to our ear and break it to our hope." Is the downfall of Macbeth caused by external forces or by something in his own character? Explain.

### II. Passages requiring special attention.

Act I, sc. III, 1.

Act III, sc. I, 1.

Act I, sc. V, entire scene.

Act III, sc. V, 1.

Act I, sc. VII, first 11½ lines.

### III. Additional work.

Your teacher will indicate which parts of this, if any, she wishes to do.

A. The witches in *Macbeth* are frequently spoken of as symbolical. Discuss any symbolism that you see. (See next question.)

B. Had Macbeth thought of becoming king before the witches greeted him? (See question above.)

C. Did he consider "foul play" before Lady Macbeth suggested it to him?

D. Re-read the scenes that show us what Banquo was like.

E. Does Macbeth remain the same (uniformly speaking — weak or strong, brave or cowardly) throughout the play? Explain. Be specific.

The following suggestions for the reading of *Silas Marner* or *David Copperfield* form a rather typical 11 A assignment in literature. There is just an average amount of guidance; the suggestions are general rather than specific:

*Silas Marner* (two weeks) or *David Copperfield* (three weeks)

When you read a new novel, what do you like to discuss? Bring suggestions and questions to general conference — also suggestions for dramatic committee.

Topics for discussion:

1. Are you most interested in the story itself or the people or the kind of life they lead? Why?

2. What characters interest you most? What actions seem true to life? What scene do you enjoy particularly? Why?

3. Does the author's purpose seem to be to teach a lesson, to give a picture of life, to amuse? Prove by references in the book.

4. Give instances of humor, pathos, interesting description, dramatic scenes, caricature, phrases worth remembering.

5. Have you discovered anything about the author in the book itself, in the introduction, in other books? What? Where?

When you have finished reading the book — probably in the third week — write your views on 2, 3, or 4.

If you finish ahead of time, read another book by same author, and give oral or written report in class or prepare a talk on 5, getting the information from other books.

For the reading of *The Merchant of Venice* in 9 B the direction must be more specific and more detailed.

*The Merchant of Venice*

I. Read over the list of persons in the play, pronounce the names to each other so that when you come to conference, the names will not seem entirely new. At this conference we shall talk over why Shakespeare felt he could have so many scenes in a play and how the audience knew when the end of a scene came. (There were no curtains in those days.)

II. When you have finished Act I, write a list of characters you have met, in your notebooks. Write a sentence for each telling what part he or she plays. Add to this list each new character that you meet.

III. Talk over with other girls in the class the ways in which Portia is like a modern girl.

IV. There will be a conference when you have finished Act II, in which we shall discuss: 1. Launcelot Gobbo, — is he funny or isn't he? 2. Portia's father, — was he a wise man? 3. Portia and her lovers.

V. In connection with this play memorize the following starred selections and twenty more lines you like. \*\*Act I: Sc. I, lines 114 to 118; Act I, Sc. II, lines 13 to 19; Act II, Sc. IV, lines 12, 13; Act II, Sc. VI, lines 52 to 57; Act III, Sc. II, lines 150 on; \*\*IV, Sc. I; lines 1 to 24; V, Sc. I, lines 90, 91.

It is not, however, the school age of the child that alone determines the nature and amount of guidance needed in reading. The type of book also is a determining factor. In comparison with *The Merchant of Venice*, the three books planned for in the following assignments are easy reading even for 9 *B* girls. These assignments illustrate the training given in "skimming and skipping" as contrasted with the intensive nature of the reading of the play.

*The Crisis*

Read the assignment through first.

*The Crisis* is a book you will have to read very rapidly in order to finish in about three weeks. If you find that you are reading too

slowly, skip nearly everything but conversations. You'll still get the story.

Keep these points in mind:

1. What part does each person play in the plot?
2. With what points in the historical background are you familiar?

Conference. There may be time for only one conference; so make the discussion a live one. Here are some suggestions for discussion. Be prepared with two other topics written on a slip of paper.

Suggest a title for each of the three divisions of books.

How would you divide the story into acts for the stage?

Which scene is most exciting?

Which character is the most like some one you know?

### *The Christmas Carol*

You will be introduced to Scrooge and Marley's Ghost in a conference with your teacher on Dickens' Christmas stories. Most girls will find that they can finish this work in about a week of outside reading.

From these stories we shall try to get:

1. A definite idea of a simple plot.
2. An introduction to the style of Dickens in which he makes his readers see everything in smallest detail.

A plot in a story is like a thread in a necklace — a chain upon which to hang interesting events and people. Look up in the dictionary the word "plot" as applied to literature and copy the meaning. You will see as you read that the plot of the *Christmas Carol* is easy and simple to follow as Dickens has divided the story into parts or staves.

Conference. Here are a few suggestions for discussion. Bring at least two others jotted down with you.

How Scrooge looked.      The plan to reform Scrooge.

The Cratchit household.      How it all ended.      The Fezziwigs.

Perhaps you would like to dramatize one or two scenes. You might present them at conference. Please consult your teacher so that a class period may be arranged for. Remember that your committee must provide costumes and properties.

*The Cricket on the Hearth*

If you don't keep your eyes open in this story, you will be as dull as John, the carrier, and "miss the point" entirely. Read for pure enjoyment, because the story is good fun.

Conference. If your book has a picture on p. 102, see how many people and things mentioned in the story you can find.

Here are some topics for discussion. Be able to talk intelligently on all of them:

1. Why was this title given to the story?
2. Why did Dot faint?
3. Was Caleb right in deceiving Bertha?
4. What do you think of:

Gruff and Tackleton as a lover.

Tillie Slowboy as a nurse.

Dot as a housewife.

5. What part of the story seemed funniest?
6. What part of the story did you enjoy most?
7. What part of the story was most mysterious?

Theme: Write a theme of three or four sentences — about one of the people Dickens has introduced to you or your reasons for liking either one of these stories. Be very particular about spelling and punctuation and ask yourself whether it will interest the person who reads it.

Extra work: Your group might prepare to present a scene from either of these stories. Each girl may prepare to pantomime one of the characters or several girls may pantomime a scene while the rest of the class guesses.

The 9 *A* pupils need the maximum of helpful, constant, detailed guidance in order that they may learn to think as they read. This assignment in *Old Testament Narratives* is typical.

*Old Testament Narratives*

Read each story listed carefully. The stories group themselves naturally; plan your time so that you can read all of one group at one time. Do not forget the notes in the back of the book that relate to the story. (Approximately six to eight days' work)

I. The stories on pp. 1-32 form the first group. The interest centers about Abraham, Isaac, and Jacob, the founders of the Jewish race. Read these stories with the following questions in mind:

- A. What was God's purpose in testing Abraham?
- B. What is a birthright? Why was Esau willing to sell his?
- C. What prophecy did Isaac make in his blessing of Esau?
- D. What was Jacob's dream?
- E. Why did Joseph's brothers wish to do him harm?
- F. How were the prophecies in Joseph's dreams fulfilled?

II. The interest in group 2 centers about Moses, the great leader of the Jews. Read pp. 32 to 40, keeping the following questions in mind:

- A. How did it happen that Moses, a little Jewish boy, lived in the house of Pharaoh of Egypt?
- B. What signs were given to Moses to prove to the people that he had talked with Jehovah?
- C. What qualities of a great leader did Moses show?
- D. Find out from an outside source why Moses was not permitted to go into the "Promised Land," with his people.
- E. Come to conference prepared to tell what inspiration there is for us today in the story of Moses. Which of his qualities should you like to see in our own leaders? Can you think of any great leaders in the United States or in other countries who show something of the spirit that was in Moses?

III. After reading the story of Samson, find some one else who has also finished and discuss these questions with her:

- A. What are the strong and the weak points in Samson's character?
- B. Discuss Delilah's character to discover whether there is anything to admire there.

IV. The Bible story of Ruth is a perfect story of simple country life among the Hebrews.

- A. What is the main idea of the story?
- B. What qualities in Ruth do you admire most? Do you sympathize at all with the other daughters-in-law of Naomi?

V. Saul is the central figure in the next group of stories. Read from p. 68 to p. 86 and prepare to discuss the topic given below.

- A. Choosing a King of Israel.

- B. A mighty giant and a shepherd boy.
- C. A great friendship.
- D. A prophecy fulfilled.

(6) Provision for maximum and minimum assignments. In order to stimulate the abler pupils, the assignment should provide maximum units or topics of sufficient interest to invite investigation. The minimum should be planned to strike a fair standard for the child of inferior ability so that achievement may be possible. To stimulate the child of superior endowment to work up to his limit, one may offer the incentive of extra credit; but a more desirable appeal, of course, lies in the nature of the material suggested for extra work. The attempt should be made to appeal to the child's natural interests by offering opportunities sufficiently varied or broad in character as to awaken individual response. Freedom of choice is here preferable to uniformity of assignment.

One popular type of extra work is the preparation of a scene or a pantomime. Such an invitation as the following from a 9 B assignment on *The Christmas Carol* is eagerly accepted:

Extra work. Your group might prepare to present a scene from either of these stories. Each girl may prepare to pantomime one of the characters or several girls may pantomime a scene while the rest of the class guesses.

It is very easy to induce those who read quickly to supplement the assigned work with allied reading. For instance the 11 A assignment contains the following suggestion:

For those who read quickly: *The Vicar* has much in it that is autobiographical. If you want to know more of Oliver Goldsmith, read *The Jessamy Bride*, by Moore, or Irving's *Life of Oliver Goldsmith*. Report on additional reading either orally or in writing.

In 11 B where eight weeks were needed by the average child for the reading of the two long novels assigned for that form, the more rapid readers had time for one or more additional novels. The attempt was made to suggest novels by authors with whom the girls were already familiar, so that they might choose according to their particular interests. In individual cases where none of these suggestions appealed, the girl was directed to the library or offered further choice from supplementary sets in the department supply.

Literature: During the next eight weeks you will have time to read the two novels, *The Mill on the Floss* and *The Cloister and the Hearth*. If you read quickly, and wish to do more than the minimum assignment, choose one of the following. Discuss your extra reading with another girl, if possible, and arrange with your teacher for an extra conference when you are ready.

Stevenson's *Master of Ballantrae*

Scott's *Kenilworth*

*The Talisman*

Austen's *Sense and Sensibility*

In planning their own assignments, the children themselves offered an interesting and varied range of optional material, showing their realization that the scope of literature and composition is broader than the limits covered in the minimum assignment. This is part of an 11 B class project in assignment planning.

From the following seven suggestions, only two are necessary for minimum work. It would be wise to choose any one of the historical topics, and one of the remaining three. Any or all of the rest of the topics will be counted as extra work.

1. Historical background of *Julius Caesar*
2. Review of Shaw's *Caesar and Cleopatra*
3. Review of Shakespeare's *Antony and Cleopatra*

4. Pretend you are a Roman and write a letter or a page in a diary. (1 and 4 are especially for girls studying Latin.)

The thing you must be most sure of, in these four, is to get the atmosphere of Rome and Caesar and Antony and Cleopatra. Don't be modern.

5. Short story. Make it a complete story and not merely an incident.

6. Letters: two of the following three:

invitation      application      order complaint

7. Description of something actually seen. In order to get the picture vivid but correct, it must be what you have really seen.

To permit only the girls who are doing E or G work to attempt the maximum assignment is an arrangement which has a double advantage: in the first place, it prevents the poorer student from skipping over the minimum essentials in order to reach the more alluring maximum assignment; in the second place, the fact that it is a privilege accorded only to those who do good work acts as a spur to the able but lazy pupil, — a fairly common type. The following 10 A assignment was devised to appeal to that side of human nature:

TO BE GIVEN ONLY TO GIRLS DOING E OR G WORK

Technical:

- A. Write a paragraph of contrast on any of the following:

1. Any corner in the center of the city (on Sunday) (on a week-day).
2. Myself and the self I should like to be.
3. The Dalton Plan and our method of last year.

B. Write a paragraph of comparison on the same topic you selected under A.

C. Write on the topic: A crowd coming from a theater — using the four different methods you have studied (four paragraphs).

Literature:

Additional reading — *Sense and Sensibility*.

The following composition assignment for 11 *B* illustrates practically all of the points suggested for guidance in making a good assignment: there is room for choice; there is provision for additional practice for those who need it; pupils are referred to different texts thereby learning that to know "a book" is not to know a subject; the tone of the assignment is interestingly informal; sufficient guidance is given, but not too much; there is some provision for project-planning and for socialization:

Here are a number of composition assignments for you to choose from. Everybody must complete satisfactorily at least five of them before December 12. The others you may do or not do, as you please, judging for yourself whether or not you need extra practice in writing. If your teacher feels that you need drill in any particular kind of writing she may ask you to substitute other assignments for those listed. If you yourself wish to do a piece of writing not provided for here, ask your teacher if you may substitute your suggestion for one of these.

The textbooks and reference books in the classrooms will give you help in writing the friendly letter, the business letter, the description, etc. Don't forget also to consult them if you are in difficulty about your grammar or punctuation.

I. A friendly letter, a chat by mail with a friend. Consult the reference books if you do not recall the proper form. Cut the regular unlined paper and fold it to represent letter paper. Inclose it in an addressed envelope. Be careful to avoid trite, unnatural phrases. Write as you would talk.

II. Everybody needs to know how to write a business letter. The reference books will tell you about the proper form and the tone of the letter. When you have consulted some of them, write a letter asking the American Express Company to trace a package sent to you recently, which has not arrived.

III. Perhaps you would like to paint a word picture. Here are a few topics to choose from, or better still, supply your own. Try to get unity of effect, vividness of color, movement, etc., into your

picture by seeing it clearly in your mind's eye. Perhaps you can imitate some of the beautiful imagery of the poetry you have read.

An autumn day	}	Note that these are not titles
The street on a rainy night		
A home scene		
Marketing		
An odd or interesting person		
A winter scene		

IV. Write a composition explaining clearly and in some detail the Dalton Plan in our school. You will need to decide first the number of paragraphs necessary and the general topic of each paragraph. Be sure that you begin your composition easily and round it off so that it sounds complete. Make good transitions between paragraphs.

V. Sometimes when you try to explain the meaning of a poem, you get into difficulties because your vocabulary is inadequate and your expression clumsy. Select one of the shorter poems from your collection, perhaps one of the sonnets. Be sure that you understand just what it means. Then try to explain it in your own words, working for gracefulness of expression as well as clearness. Try to make your prose interpretation as much a work of art as the original poem was.

VI. One column of the *Fortnightly* is devoted to criticism of books and authors. Write a brief account, suitable for that column, of one of the poets you have met this term. Make him seem to your readers an interesting human being.

VII. If you have done any supplementary reading on the poets or poetry of the romantic period, plan an interesting report to be given orally to the class. Let your teacher know ahead of time, so that a conference may be scheduled. If a number of girls choose this assignment, an interesting program might be planned, including also some reading of the poetry aloud.

VIII. Write a letter of thanks to some friend. You may thank her or him either for a gift or for some hospitality. The latter is often called a bread and butter letter.

(7) Provision for self-testing. One way of developing the critical sense of the child, of encouraging independent work,

and truly honest work is by offering self-testing and self-corrective devices. It is difficult, perhaps impossible, to devise such material for literature and composition. For purely technical English, however, the standard tests offer splendid material for the diagnosis of errors; keys for scoring are easy to prepare. The following excerpts from assignments refer to material devised to provide for try-out practice work:

In the assignment for February and March, you were asked to write sentences of your own. Now get a sheet of twenty-four sentences from my desk, and make all the corrections needed. When you have finished, consult the key from my desk to know whether or not your work is correct. If you have more than eight errors, ask me for more material.

Maximum assignment. If you finish the assigned work before the class is ready for conference, come to me for extra work on "Sentence Error Drill," pp. 2, 4, 5, 10, 12, 13, 14. To test the correctness of your work, consult the keys from my desk.

Next week you will be tested on your ability to use compound sentences correctly. Hence do exercises 2, 3, and 4, pp. 103-104, very carefully in order to prepare for the test. When you have done the very best you can, compare your work with the key. If the key tells you that there are chances of your failing next week, try the sentences in Lewis and Holic, pp. 172-173, for extra drill. When your work shows that you can manage sentences show all that you have done to your teacher so that she may know when you have completed the assignment.

Check-up tests on technical work with their accompanying keys for scoring give the child the opportunity of judging his own progress before he advances to the next problem. The fact that these tests can be administered and scored by the child saves the teacher's time for necessary conferences. Moreover, they insure more thorough preparation for the formal test given and scored by the teacher; the

child knows what is expected of him and whether or not he is really equipped. The following check-ups in 9 A word study illustrate the type which can be so easily paralleled. The keys were given to the children and the marking confirmed often enough to check the ability of the children to use a key.

Write the proper contractions for :

You are mistaken, I am sure.  
It is they whom you have offended.  
Who will go see if she is there?  
Would you not help?

Write the correct abbreviations for :

Maryland	September	please reply
Doctor of Medicine	Pennsylvania	note well
principal	United States Navy	adverb
morning	against	of the current month
Saturday	treasurer	verb transitive

Dictate the following :

coming	baggage	seemed
received	hoping	judging
benefited	fairies	omitted
argument	hopping	forgetting
believable	advantageous	amusement

Write the equivalent beside each root given :

ced	fer	port	sci
chron	graph	pos	scrib
cred	magn	reg	vis
fac	metr	scend	

Write the meaning of the prefix beside each word given :

antemeridian	international	re-build
antislavery	misspell	subway
descend	percolate	superhuman
dismiss	precede	transport

Write a word containing each of the following suffixes and define the meaning of the suffix. (Prefix a base to the suffix. Write the meaning after the suffix.)

an	ite
ary	ness
eer	ful
en	ous
hood	fly
ism	ate

Underline in the following words, the letter or letters commonly misenunciated :

diphtheria	duty	government	piano	library
pumpkin	how	Italian	get	engine
Arctic	nature	February	Latin	temperate

Select the proper word to use in blank :

The interest on your — amounts to two hundred dollars. (principal or principle)

He is a man of fine —. (principal or principle)

The — streets of the town are very wide. (principal or principle)

The sun is our — source of heat. (principal or principle)

Plain white — is appropriate for every occasion. (stationary or stationery)

These — tubs are made of fine white porcelain. (stationary or stationery)

— is your book on the table. (their, there)

I shall — the invitation with pleasure. (accept, except)

Frost — the budding trees. (affects, effects)

The — on the fruit crop is a serious one. (affect, effect)

**The technique of class procedure.** After the assignments, the chief consideration under a laboratory scheme is the technique of class management. It is desirable, but not essential, that rooms be equipped with chairs and tables rather than with fixed desks, in order that new groupings may be more easily made. It is essential that there should

be reference books and illustrative material at hand so that the rooms may really be laboratories for study, as well as conference rooms for discussion.

The management of the laboratory classroom means that the teacher must be able not only to guide the class through discussions as before, and to present new material adequately, but to manage the smaller, more closely segregated groups which will constantly form and re-form. She must be able to give help where needed, to insist on independent work where that would be better for the child, in short to drive a six-in-hand without allowing any to collide, or to drop out of the race discouraged. By exercising ordinary teaching sense it is possible to avoid entirely the obvious dangers either of overemphasizing individual activity or of allowing the deadening uniformity of mass work.

If, therefore, assignments are planned with an eye to the already established procedure in good teaching — socialized recitations, supervised study, project-planning, minimum-maximum assignments — the mechanics of class management are soon mastered, and the teacher begins to discover that she has all that she had before in the way of teaching possibilities, plus the Utopian dream of being able to allow her pupils to do their own work, at their own gait, with ample time and suitable equipment for study and for discussion.

## CHAPTER VI

### THE DALTON PLAN IN HISTORY AND THE SOCIAL SCIENCES

**Groups.** No subject could be better adapted to a system of individual or group instruction than is history. Here is a study in which interest can take the place of drill to a very great extent, with the result that you need never call your entire class for the purpose of drilling. That being true, it seems as if the full class conference is desirable only where the class is so homogeneous as to constitute a single group, or, on those infrequent occasions when the new assignment is to be introduced, or when special reports, of interest to the entire group, are to be given, or the teacher wishes to carry forward inspirational work of some other character. For the ordinary procedure, groups based on ability are desirable. The grouping may be done by the teacher, according to I.Q.'s, or the class may be left to group itself. Experience seems to show that the groups, in the second case, are practically the same as in the first case.

**Assignments.** Let us start at the beginning, with the assignment, to see how it can best be adapted to the varied abilities it has to serve. Some experimenters in this field think it advisable to have two separate contracts, one based entirely on facts, very simply and specifically called for, for the low I.Q.'s, the other, for the high I.Q.'s, demanding reasoning ability, development of topics, association of facts. Where there is a class that is one hundred per cent fine ability, and another that is one hundred per cent low

grade ability, this method seems desirable. As our experience has so usually been that we must take a few of the weaker sisters into the superior class, and vice versa, we have found it more expedient to adapt a single assignment to the needs of all.

Here is a unit of work in beginning American History, given in the third year of high school. It is to be completed within a week.

The Federalist System. (Four days)

A. Muzzey, pp. 184-205. Describe the President and his cabinet. How did Hamilton meet the financial problems of the new republic? Show how political parties originated. List every important step in our relations with (1) France, (2) England. Why are the Virginia and Kentucky Resolutions important?

B. Electives:

1. Hamilton's financial measures, Bassett, pp. 29-37, 38-41.
2. Farewell Address. (Secure typewritten copy.) What was the occasion for the address? Did Washington think it constitutional to serve a third term? What advice did he give the new republic? What is the importance of the address?
3. XYZ Affair, Hart, pp. 165-168.
4. Kentucky and Virginia Resolutions, Hart, pp. 168-175; Mace, pp. 231-232. Who was responsible for the authorship of the Resolutions? Where did they place the deciding power in cases at issue? How is a state to express its dissatisfaction?

*Minimum and maximum.* Under *A* is given the minimum. This work is required of all, and is all that is expected of the weaker pupils. Under *B* are a number of electives. No one is compelled to do any of them, but a sufficient variety is offered, with sufficient elaboration, to entice the favorably inclined. There is also a purely practical urge. That is, that no matter how excellent the work on the minimum, if that is all the pupil has to offer, she

cannot grade higher than G. The E's are reserved for those who prepare, on the average, one elective each week in addition to the textbook material.

We found that this assignment worked very well with the most intelligent girls, but that the poorer pupils needed a greater elaboration of the textbook material. This presented a real problem, for we were confined to a single sheet of paper for the assignment for the entire month. In many of our assignments, we had elaborated the text, but it had been at the expense of the electives which were put at the end of the assignment, or perhaps omitted entirely, and left in the hands of the teacher, to be given out by her as the girls asked for them. But, as you can see, this tended to discourage their attack. Hence we endeavored, wherever possible, to leave the electives as prominent and as enticing as possible. And we felt it imperative to offer as many electives as we could. Here it is that our work is most truly on a project level, for the girl may choose the electives that appeal to her. Indeed, we encourage the pupils to look critically at the electives, and if none of them appeals, to suggest to the teacher some other subject on which they would like to work. Sometimes they suggest a large enough and valuable enough piece of work to take all their time for a month.

*Supplementary work for poorer students.* The problem of the poorer students we have solved in the following way. The teacher makes out a series of questions, or possibly directions for work, which supplement the description on the assignment. Some teachers dictate this material each week. In other cases, eight or ten typewritten copies are available on the teacher's desk. Any girl may copy them. No good student is required to have them, but no poor

student is admitted to conference unless she has first worked out these questions. Since this material is a help, making work lighter, there is but little difficulty involved in seeing that the girls make use of it. The following is a set elaborating the above unit of work :

1. Name Hamilton's two aims in working out his financial program. Describe the opposition to the refunding of certain war debts, and the assumption of certain others. Why did the United States pay all the war debts?

2. What was the Whisky Rebellion?

3. By whom was our first tariff proposed? Name the two aims of this measure.

4. Describe the National Bank, and the opposition. Whose plan was it?

5. Describe the first political parties, giving their attitude on (a) the Bank, (b) the national government.

6. What led to Washington's advice to the nation to avoid entangling alliances?

7. Who was Citizen Genet? Why was he sent home?

8. What circumstances led to the Jay Treaty? Describe the treaty. How was it received?

9. What was the XYZ affair? What was the outcome in 1798? When did Napoleon become ruler of France?

10. What were the Alien and Sedition Acts? What was their effect on the party responsible for them?

11. What were the Virginia and Kentucky Resolutions? Their significance?

*Electives.* It seems desirable to say a word or two about the electives. We found that, at the beginning, the younger girls were apt to slight the minimum requirement in order to work on the electives, while the older girls tended to do only what was required. No great pressure was brought to bear on the older girls. Where their work was of excellent quality, the teacher usually asked the girl if she would not

be interested in reading further on such and such a topic. The response has ordinarily been splendid. Each month shows that a larger number of the girls who should be extending their work are doing it, until at present some of the teachers can give an almost one hundred per cent record of the maximum accomplished by excellent or good students.

Now, as to the use made of the electives: Of course, the best way is to discuss them fully at the time the subject comes up in conference. When this is not practical, however, it seems to work well to have reports on the electives written out and handed in. They may be summaries, resumés, or criticisms. During the month, as they come in, the teacher reads them and writes on each her criticisms and comments. Those that are especially well done and that are on subjects most interesting to the entire class are checked, and the girls who wrote these reports are asked to be ready to give them orally to the entire class. The day assigned is likely to be at the end of the month when the teacher is stamping and marking graphs, since her attention must be given to the graphs, and this work, having been criticized previously, requires but little censorship from the teacher.

**Classroom procedure.** *Distribution of assignments.* So much for the assignment and preparation. Now, what happens in the classroom? The first day of the month, with the entire class present, the assignments are distributed. If you look at the history assignments in the appendix, you will see that many of them are noticeably lacking in "interest pockets." Well, of course, we were saving space, but that was not the only reason. We discovered that our flowery flights of eloquence were carefully skipped by the

younger generation, while they proceeded directly to the main business of the assignment. So this first day has come to be our day of inspiration, when we tie the new month's work to the old, take a bird's eye view of the topics before us, and point out the truly fascinating character of the roads ahead. This method seems very satisfactory, and quite sufficient. On this day, too, we announce the date when the girls should be ready for conference on each unit, if they are to keep up with the term's work. We may even, so far ahead of time, announce the day when the monthly examination will be held. If it is the first assignment of the term, the class has the advantage of a whole week of work periods before the first conference takes place; for during the first month we do not give the girls time freedom, but require them to "follow their rosters." This is our opportunity to go among them as they work, to see how they are studying, what kind of notebooks they are keeping, how they are interpreting their assignment. Here is our best opportunity to teach them how to study.

*The conference.* When the dates for conferences arrive, we find that the best students are prepared. Perhaps one or two of the poorer ones have also covered the ground, inadequately, no doubt, but still to the best of their ability. So be it. We let them join the conference; but we prohibit attendance by those who have not done the work, or, at any rate, we prohibit their attendance accompanied by pencils or pens. For the lazy, alas, will take advantage of kind-hearted teachers, and save themselves the laborious process of studying by industriously copying into their notebooks all the information revealed in the conference.

We keep this conference on the level of the intelligent girls. The one or two of lower I.Q.'s who stray in will not

be hurt by what they hear, and, if the pace is too swift for them they may attend a second conference with the slower girls later on.

The method of conducting the conference varies with the grade. Beginning with about the third month of the latter half of the junior year (advanced American History), and going on through the senior year (political, social, and economic problems), the work is topically arranged. This fact, taken in conjunction with the more mature age of these girls, makes it seem desirable that the girls shall seek enlightenment on their difficulties. They learn by degrees to ask intelligent and worth-while questions. If the teacher is not convinced by their questions that the girls understand the unit of work, she can easily supplement them with her own. In the lower grade, even with the best students, it is preferable to have the questions originate with the teacher. These girls are less able to frame their questions, or even to know their own difficulties. Moreover, since the time difficulty is one of the most evident in teaching history, it seems highly desirable that the material shall be treated chronologically.

If it happens that the class is a fairly homogeneous group, possibly five-sixths of its members will attend the first conference. A few stragglers will be left over, and these we can care for individually in the work periods that follow. But if the class is of very mixed abilities, we probably have a second good-sized group of honest, hard-working pupils, who can plod along satisfactorily on the minimum, and no doubt, still a third group composed of the lame, the halt, and the blind, intellectually. We may even have a fourth group, and as the term advances, a fifth group, as the lazy, the slow, the stupid, show their different rates of speed.

But experience has taught us that it is best to keep our classes in not more than three groups, for the situation becomes complicated when we attempt to provide adequate conferences for an unlimited number of groups. In history, we find that one full period is as brief a time as can be allowed for a conference on the week's work. Hence, if history is on a four period a week basis, and our class falls into five groups, a tragedy is imminent. We may be so fortunate as to find school time when we can meet this extra group, or we may be obliged to offer extra conferences after school. If the class falls into four groups, that allows time for four conferences, but time for nothing else! And there are other things to be considered. Moreover, what is the quality of that fifth conference? Or even of that fourth conference? When we have lost our own vim and enthusiasm for the piece of work in hand, the children suffer. If we have three or four classes in the same subject, we may have to cover the same unit of work fifteen or twenty times. If we become bored, most assuredly the children will too. But I think we can continue inspired through at least three conferences per class, if we adopt a bit of the actor's attitude. Each time, you know, we have a new audience, a different audience. We try not to let our minds linger over the lines, which we know so well, but keep our attention on the presentation of those lines. We want our class to understand as we understand, to see the situation as clearly as we see it, and each time that we present it, there is a new element involved which keeps up the interest.

*Check-ups and tests.* We must spend a little time discussing the check-up which follows the conference. Giving a major test once a month seems very satisfactory if we give our pupils the opportunity to test themselves out on each

unit of work. Because of their definiteness, and because of the ease with which they can be marked, the temptation is to give tests of such varieties as the one word, completion, multiple choice, and false and true. It is quite possible that these tests are occasionally valuable, but they certainly offer little assistance to the child who is aiming towards an understanding of the development of history. Pupils who pass such tests satisfactorily may fail completely on the monthly examination, for they may have learned nothing but a succession of facts and dates, which they are unable to associate properly. Thought-inspiring questions, which require discrimination, associate memory questions, those requiring judgment and a sense of the chronological development of history, are infinitely more helpful. There are some form tests which illustrate such abilities, but it is fairly difficult to use them with satisfaction over so short a period as a week's work. Such a question as: "Which one of the following rendered the most important service to his country?" followed by a list of names, might possibly be used on a weekly check-up, but ordinarily there will not be more than one outstanding figure during the week. Such a question on the monthly examination is desirable occasionally, to develop a sense of discrimination, and also for the ease of marking. But, for the unit check-up, we have found it much more valuable to give such questions as the following:

Justify or condemn these statements by giving the facts in the case:

1. It was a foolish waste of money for the government to pay the domestic debts in full.
2. It was inexcusable for our government not to go to the aid of France in the European War following the French Revolution.

3. Political parties arose over the question of a national bank.
4. The Alien and Sedition Acts were approved by the country at large.

The slips containing the questions are typed, and may be taken from the teacher's desk by those ready to use them.

The value of such questions is determined by the use made of them. If the teacher is continually involved in the conferences which precede such tests, she has two possibilities before her. One is that she shall mark and return all such papers, without giving class time to them. If the papers are not only marked, but carefully corrected, this will be valuable for the pupils. But the effect on the teacher, if she has a heavy pupil load, is devastating. She becomes a paper-marking machine, and gradually sinks to her spiritual death in a sea of papers. The other possibility is to have the answers available for the children, either by noting the places in the text where they may be found, or by making out an answer sheet full enough and yet simple enough to be used by the children. That, too, takes a great deal of time. Moreover, unless the pupils are very mature, it is only the capable ones who can profit by it. And they are the ones who need it least. The poorer pupils are very weak in critical ability and need assistance. Hence, it is altogether desirable that at least one day a week be free from the ordinary conferences, so that the teacher can discuss with the children the answers to her questions. Such discussion should take not more than ten or fifteen minutes. It seems most desirable and most conducive to honesty among the children that no attempt be made to use these tests for grading. They should be helps

to the children, nothing more, pointing out to them their difficulties.

We find other uses for the day when we are free from conferences. Sometimes we allow at the beginning of each period a few minutes for individual questions. But, coming into the room from some other subject, few of the pupils are prepared to ask questions at the beginning of the period. By the time their questions occur to them, we are involved in a conference, and, either we and the conference are interrupted, or the questions go unanswered. Hence, we have found it helpful that at least once a week we shall be available in the heart of the period.

We need say little more of the monthly examination than has already been said in connection with the check-up. Since, in many cases, the month's work is a topical unit, such an examination gives a very desirable opportunity to review. We plan the test so that it will not take too much time in the marking. We make the questions so definite that there is no excuse for rambling, and count off if rambling takes place. The following test for 11 A American History combines the form test with that of the old-fashioned composition variety. The first question is planned to show discrimination, the second, association of cause with effect, the third, chronological arrangement, and the fourth and fifth, the development and expression of a topic:

I. A. Put a cross before the event in the following list which has been of the greatest importance in American History:

1. Jay's Treaty with England
2. Election of Jefferson
3. Sending home Citizen Genêt
4. Purchase of Louisiana

*B.* Put a cross before the event in the following list which has been of the greatest importance in the foreign relations of the United States:

1. XYZ Affair
2. Jay Treaty
3. Monroe Doctrine
4. Embargo Act

*C.* Put a cross before the names of three men in the following list who have been of the greatest importance in the development of the American nation:

1. John Jay
2. John Marshall
3. Thomas Jefferson
4. Aaron Burr
5. Charles C. Pinckney

II. In the left-hand column is a list of causes. In the right-hand column is a list of results. Draw a line connecting each cause with the proper result.

- |  |   |
|--|---|
| <i>A.</i> Spain cedes land west of Mississippi to Napoleon | <i>A.</i> Beginning of nullification policy |
| <i>B.</i> War of 1812                                      | <i>B.</i> Impressment of seamen stopped     |
| <i>C.</i> First National Bank                              | <i>C.</i> Growth of nationalism             |
| <i>D.</i> End of European Wars                             | <i>D.</i> Purchase of Louisiana             |
| <i>E.</i> Alien and Sedition Laws                          | <i>E.</i> Beginning of political parties    |

III. Arrange the following events in chronological order: by putting the numeral 1 before the first that occurred, 2, before the second, etc.

- A.* Purchase of Louisiana
- B.* First tariff law
- C.* Monroe Doctrine
- D.* Establishment of First National Bank
- E.* Virginia and Kentucky Resolutions
- F.* Jay Treaty
- G.* War with Great Britain for second time

H. Purchase of Florida

I. Battle of New Orleans

J. Origin of political parties

IV. Describe our first tariff. Who proposed it? Why? What two results was it supposed to have?

V. Give the Monroe Doctrine. Why was it issued?

(NOTE: The answers to the first three questions are provided for. The last two questions were answered on the reverse side of the paper. Enough copies were mimeographed for each child to have one.)

**Adaptation of methods to different grades of work.** Such a plan as the Dalton cannot be adopted *in toto* from any other school. Hence, while this method of instruction is in its infancy in a school, it seems desirable to give the teachers as few varieties of work as possible, letting them concentrate as much as possible. At the time of its initiation, the writing of the assignment is a difficult piece of work. We discovered that it took some little time to learn to express ourselves briefly, concisely, and effectively. The text material needs to be analyzed, and if there are several texts, used by different teachers, there is the additional task of harmonizing the assignment to all of them. Then there is the even larger problem of choosing the electives, or maximum assignments, and of working up the bibliography. You will notice in the assignments given in the appendix, that the complete bibliography for the month's work is put at the top of each assignment. This saves much space in the body of the work and makes it simpler for a librarian to render assistance. If the library is meager, you may have the task of choosing new books. Money is always limited, so you must choose carefully. This frequently means that a choice must be made between duplicating the books already on hand or increasing the variety of references.

Sometimes it is better to do one, and sometimes the other. It is probably better to duplicate books only as the need for additional copies is expressed through the work of the pupils. We have found it advisable to have as much material in the classroom as possible. The library is apt to be overcrowded, and single copies have a mysterious way of disappearing from the library shelves during the time when there is a heavy demand for them. Hence we have made it a practice in much of our work to ask the librarian to send to the history room all the books in the bibliography of that assignment for the current month. These are kept in the classroom throughout the month. There they are accessible both in the regular period and throughout the day. After school, they may be taken out overnight, the understanding being that they must be returned before school the next morning. The girls have coöperated very well in this arrangement. We have found that about five copies of a book are sufficient for use by the entire class on any particular reference. For the ordinary elective, one or two copies is adequate.

For different grades of work, different adaptations must, of course, be made. The senior class in modern history problems prepare term papers, instead of working on short electives. And, as you have probably discovered in any method of teaching you may be using, the seniors can be depended upon to use the public libraries to a considerable extent. That is to say, if the library is limited, it is more important to see that books are accessible for the younger girls, so that they learn how to use them, and form the habit of doing work outside the text. In this modern problems class the girls themselves help to plan the assignment, each succeeding one depending pretty largely on the

problems raised and the interests aroused by the current contract.

*An experiment in ancient and medieval history.* One of the teachers has been experimenting with the academic classes in ancient and medieval history (ninth year work). There are only two classes in each of the two grades of this work. The following unit of work serves to show how little the text needs to be relied upon, even with only one or two copies of the additional references, provided the references are short, and the class has initiative and ability:

UNIT I (Two days)

Introduction: Caesar is said to have remarked on crossing the Rubicon, "The die is cast." So it was for Caesar and for Rome. Swift changes followed and Rome was transformed from a dying republic into a powerful empire.

Problems:

A. List the reforms of Caesar.

B. What opinion do you form of this man after reading of his reforms?

C. Compare H. G. Wells's opinion of Caesar with that of Ferrero.

D. What happened in Rome after Caesar's death?

E. Optional: Describe the death and funeral of Caesar.

References: Required: West, Ch. XXIII, pp. 204-210; H. G. Wells, *Outline of History*, Vol. II, pp. 510-513; Ferrero, *Greatness and Decline of Rome*, Vol. II, pp. 343-347; Plutarch (Clough ed.), Vol. II, pp. 580-581. Optional: Plutarch, Vol. II, pp. 577-579; Shakespeare, *Julius Caesar*, Act III, Sc. 1, lines 55-122; Sc. 11, lines 239-251.

Skill to be developed: In reading, be on guard for difference of opinion of historians concerning Caesar. What should such an exercise teach you about historians?

The text in this case was used to answer the first two questions. In other instances, all the problems were answered without reference of any kind to the text.

In many cases, where the number of classes using the material was larger, and there were more calls than could be satisfied by a single book, typewritten copies were made of the reference. This is, of course, practicable only when the reference is short. Extracts from source material can easily be cared for in this way. For example, it is a simple matter to have a copy of the "Mayflower Contract" in the hands of each pupil.

*Vocational civics.* The freshman classes in vocational civics and the senior classes in the problems of democracy offer several problems that differ from the history difficulties. In vocational civics, for instance, first-hand information and current material are needed. No matter what the method of instruction, it seems imperative that one day a week should be given up to motion pictures on production and distribution and the various kinds of work associated with them, and to speakers on various types of vocations. But under our present method of work, it seems much simpler than under the recitation system to work out an effective plan by which each girl may devote herself to those vocations for which she is supposedly preparing and also to those others in which she is particularly interested. We have found it desirable to limit the time the girls actually devote to vocational investigation to two months. During the first of these two months, the academic girls make a study of the various kinds of teaching, while the commercial girls study six or eight kinds of commercial occupations. There is a different contract for each of these two groups. The contract for the commercial girls is inserted in full:

You have found that to be happy in the work you undertake for the satisfaction of your wants, you must choose wisely. Before you are ready to make a choice you should know something about differ-

ent kinds of occupations. This month we shall spend our time learning all we can about one particular field of work.

Questionnaire: This should be filled out for each problem with information obtained from an interview with some one engaged in the work. If this is not possible, you should read at least two books which tell you something of each. You will find suggestions for reading at the end of the assignment.

- |  |  |
|--|--|
| <i>A.</i> Name of occupation                   | <i>D.</i> General and special education required |
| <i>B.</i> Duties                               |  |
| <i>C.</i> Qualifications necessary for success | <i>E.</i> Advantages of the position             |
|  | <i>F.</i> Disadvantages of the position          |

NOTE: Under *D* and *E*, discuss salaries, hours, surroundings, kind of people with whom you come in contact, leisure, opportunities for advancement and the satisfaction or dissatisfaction which comes from this work.

Problem I: Assembly room civics: This month in the assembly room, we shall have speakers who will tell us of the work in which they are engaged. During the periods take notes on what they say, following the above questionnaire wherever possible. For your next class period, write these up in ink in your notebook.

Problem II: Mary's work.

*A.* Mary started to work at the age of 16 as a general clerk. Fill out the above questionnaire on her first position. There must be a conference with the teacher after this is finished.

*B.* She next became a file clerk. What additional training did she have to have for this position?

*C.* From a file clerk she advanced to an adding machine operator.

1. What advantages were there for her in this position?

2. What training was necessary?

*D.* Her next position was that of a bookkeeper. Fill out the entire questionnaire for this position.

*E.* At the age of 25 she was an accountant. Fill out the entire questionnaire for this position. (Four days)

Problem III: Anna's work.

*A.* Anna's first position was that of a typist. Fill out *C*, *D*, and *E* of questionnaire.

B. She next became a stenographer. Fill out the entire questionnaire for this position.

C. Later she was a private secretary. Fill out the entire questionnaire for this position. Why do few girls become private secretaries? (Three days)

Problem IV:

A. What qualifications are alike demanded for all kinds of commercial work? What positions require the fewest qualifications? The most unusual?

B. Which positions pay least? Most?

C. Which positions offer the most monotonous work? The most interesting and varied?

Problem V: Not required; extra credit given.

A. Find out what courses are offered by at least two of the business colleges. What attitude does the business college have towards a high school education, and at what age do those colleges encourage girls to enter?

B. Compare on a table the education, general and special, given by the high school with that given by the business colleges.

C. Give two reasons why we encourage girls to attend high school.

Suggestions for reading: Giles and Giles, *Vocational Civics*, pp. 134-139; Laselle and Wiley, *Vocations for Girls*, pp. 14-25; Jackson, Deming and Bemis, *Opportunities of Today, for Boys and Girls*, pp. 231-234; 263-265; Weaver, *Profitable Vocations for Women*, pp. 119-125; H. C. Hoerle and F. B. Saltzberg, *The Girl and the Job*, pp. 6-22; Dickson, *Vocational Guidance for Girls*, pp. 188-190; Ziegler and Jaquette, *Choosing an Occupation*, pp. 294-307.

The bibliography for this assignment was purposely relegated to the end of the sheet for two reasons. In the first place, it seemed very much out of place at the top, as the first part of the sheet makes no reference to reading. In the second place, we much prefer that the girls fill out their questionnaires from first-hand information. Consequently, we do not wish to emphasize book references.

This intensive study of the kinds of occupations towards which most of the girls are headed should help them to

decide whether or not they are really preparing for the kind of work they want to do. It also enables them to acquire a technique for the second month's work. This second month of vocational investigation is made entirely individual. The assignment is so general as to cover any vocation, and each girl chooses the kind of work which seems to her most interesting outside the ones she has studied the month previously. She keeps a notebook of the assembly talks, which not only help her on this piece of work, but give her a bird's eye view of the whole field of vocations for women. She has supposedly learned to use the books and pamphlets available. By this time, too, the opportunities to ask questions of the assembly speakers have prepared at least the best girls to get first-hand information intelligently and easily from other people. Hence it is possible for the girls to do fairly good individual work without too great a tax on the teacher.

Not a great deal of elective work is provided for these classes. There are innumerable opportunities for the expansion of the occupations they choose to study if they have intelligence and initiative, and the teacher's direction is so eminently desirable that electives should be rare and of the simplest variety. Short biographies of great women have been offered, and on several of the assignments you will notice (see Appendix, p. 183, 7) that we suggest topics that go a very short distance into the field of economics.

*Problems of democracy.* In the senior year, in our problems of democracy courses, the teachers have collected an enormous amount of magazine and pamphlet material for the discussion of current problems. Some of this material, of course, is brought in by the pupils themselves. This is not all enumerated in the bibliography, for there is so much

of it as to be confusing. Moreover, it is unnecessary. Where reference is made to it, the girls are told to get the material from the teacher's desk. Here, or on an adjoining table, is spread out the magazine and pamphlet material for the current month, easily available to any girl desiring to use it. The seniors show a great deal of interest and spend a great deal of time on their electives.

**Summary of the advantages to the child and teacher.** If we were to sum up the notable features of a single year under the present plan of instruction, we should find several that stand out prominently. First of all, we have become conscious, as never before, of the very wide range in abilities among our pupils. Even rapid and slow classes, under the recitation plan, are not half so revealing. Our best girls do one and one-half, possibly twice, as much work as they did before. Under no other plan have they been so stimulated to use the full amount of their ability, and it is doubtful from what they say and from the appearance they give, if they have ever enjoyed their work as they do at present. The old problem of "supplementary reading" is cared for with pleasure and profit both to teacher and pupil.

With the slower girls, and the timid girls, we are much better acquainted than in the old days. They gain confidence and assurance in the small group conference. It seems rather evident, too, that they are much better acquainted with their own abilities and limitations than formerly. One girl expressed the sentiment of many when she said, in regard to the printed assignment, "For the first time in my life, I really know what I am doing."

The lazy ones we have with us always, but it is easier to correct their bad habits under this plan than under any other of our experience. Under the recitation plan, if they

were good sponges, it was so easy to allow some one else to do the work for them. This plan has made over some of the lazy through sheer interest in their work, and when our assignments, and our conferences, and our check-ups are more nearly perfect than they are at present, we hope to have no lazy ones to discipline. In the meantime, we can forbid them to attend a conference, even to stay in the room, if so desired, until they have made the requisite preparation. It is a simple matter to detect an unprepared girl in the small conference group.

Finally, the benefit of this plan to the teacher seems inestimable. Any new plan is a professional benefit in that it prevents us from falling into the disabling rut. This plan, because it offers so many new opportunities, is extremely stimulating. The additional work required in the introduction of anything new is more than compensated for by the interest involved in working out the problems before us. The solution of each, the good results that we see here and there are more than enough to make us feel that a return to the old recitation plan is impossible.

## CHAPTER VII

### THE DALTON PLAN IN SCIENCE

Nature of the work (including the guiding principles which determined the graded course). The course in science at the South Philadelphia High School for Girls was framed during the year that the school opened, *i.e.*, 1916, in response to the needs of girls of high school age in that neighborhood. The population of South Philadelphia is predominately of foreign origin, not well-to-do and not broadly educated. It seemed wise, therefore, to give the girls in their course in science something that would relate as closely as possible to their daily life, at the same time introducing them to the basic principles of science that underlie daily living.

In order to facilitate the understanding of the assignments, an outline of the course follows :

The first year of introductory science (9 *A* and 9 *B*) includes a study of reproduction and other essential life processes of plants and animals, measuring, weighing, taking of temperatures, solutions and suspensions, evaporation, condensation, distillation, filtration, osmosis and diffusion, chemical and physical changes, heat, light, magnetism, and electricity.

The subject matter for the second year (10 *A* and 10 *B*) consists of topics pertaining to the maintenance of a home. It groups itself naturally under building materials, fuel, food, and clothing.

The work of the third year (11 *A* and 11 *B*) aims to give the students an understanding of the scientific principles

which underlie life in communities. It is concerned with water supply, public sanitation, transportation, and communication. A course for students of commerce, showing the relation between science and the economic life of the nation, was introduced in the fall of 1925.

In the fourth year there are two courses in science, *i.e.*, one for college preparatory students, who have had one year of introductory science, and another for normal preparatory students, who have had three years of science. College preparatory girls are given a course in biology which follows closely the recommendations outlined by the College Entrance Board. Normal preparatory girls are introduced, during the first term, to the scientific principles underlying the study of the earth as a whole, *i.e.*, the composition of its rocks and minerals, the origin of its mountain chains, its rivers, its seas, etc. They become acquainted also with the scientific theories concerning the origin of plants and animals upon the earth and with the relation of the earth to other bodies in the universe. In connection with the last two topics they learn something about the laws of light and the use of optical instruments. In the second term they become familiar with the principles of classification in each of the sciences and to some extent with the history of their development. Fourth year students are all required to take one period per week of physiology and hygiene. This time is devoted almost entirely to discussions of personal and sex hygiene.

One year of science is required for graduation; therefore every girl in the school takes the course in introductory science. The numbers are as a rule between six and seven hundred. The second year of science is elective, the alternative being a foreign language. At least one-half of second

year students take the course in household science, about three hundred. There is a marked drop in the number of students of science in grades 11 *A* to 12 *B*. In grades 9 *A* to 10 *B* the numbers are sufficient to permit parallel classes to be formed according to intelligence, *i.e.*, one group of higher and another of lower intelligence quotient. Because of small numbers this is not possible in the higher grades.

Obviously, the course in science is not strictly divided according to grades into the conventional sciences of physics, chemistry, botany, and zoölogy. An attempt has been made to develop the subject as a whole according to increasing difficulty and also according to the interests of the students.

**The writing of assignments.** When the essential principles of the Dalton Plan were put into operation for the entire school, it became necessary to place in the hands of the students individual assignments for each of the courses just outlined. Fortunately, I had just published a book on introductory science in which directions for performing the simple experiments required by the course were given in the form of prefaces to the separate chapters. This considerably lessened the labor of planning assignments for the work of the first year. The assignments for 10 *A* and 10 *B* were planned by a committee of teachers of those grades, the head of department acting as chairman, while for the higher grades each teacher wrote her own assignment.

However much the method of planning may differ, there is nevertheless a certain uniformity, for each assignment includes a minimum amount of work which every student in the class is expected to cover and a number of additional

experiments and topics which the more able and interested may attempt for extra credit if they so desire.

There is also a certain uniformity in the method of procedure required of all students. In every grade the pupils are directed first to observe and experiment for themselves in order to acquire data for conclusions. This is to be done in one or more laboratory periods. Conferences follow for the purpose of comparing and evaluating the observations and conclusions of the individual students and for the discussion of additional information gained from reference books.

**Classroom procedure.** *Management of materials.* Courses in science require from the teacher considerable time and labor in the preparation of material and in the setting up and dismantling of apparatus. To reduce this as far as possible an endeavor is made to assign to each teacher not more than two grades of work. In a crowded city high school space is at a premium and space is essential for the display of material. During the past term it has been possible so to arrange the classes that for the most part each laboratory is shared by two teachers. The first meets her classes between 8:45 A.M. and 2 P.M. The students assigned to the second teacher find her in the same laboratory between 11 A.M. and 4:30 P.M.

Although I cannot claim that the amount of available space has always been adequate to the needs and desires of the teachers, it still has been possible, by careful planning and a spirit of accommodation on both sides, to carry on the work. An example of ingenuity in economizing space is the use made by one of the teachers of a portion of the blackboard for problems involving the principle of the parallelogram of forces. [Diagrams, pp. 96-98.]

*Groups.* A certain amount of duplication of material is necessary, since, in the first two years, parallel classes segregated according to intelligence are conducted at the same time. Division according to ability facilitates both learning and teaching, but it by no means entirely eliminates the difficulties inherent in teaching pupils of varying temperament and capacity. In the lower grades there still remains a considerable range of variation. It is here that the method of teaching by groups helps the situation. It has been found possible successfully to manage three groups within the class.

Just how this may be done will perhaps be clearer if I describe briefly the method used by one of the teachers who discovered that as soon as a difference in the rates of progress of members of the class had appeared, she could best assist the girls by so arranging the material and apparatus that the students naturally grouped themselves during a laboratory period according to their rates of progress. Thus the material for the laggards was placed on a table near her desk. Those of a normal or average rate of progress worked in the middle, while the most rapid and independent workers carried on their investigations at the far side of the room. The teacher was thus able more easily to give help where it was most needed and yet to exercise occasional supervision in other parts of the room.

In all classes a student, at the end of her stay in the laboratory, is required to show to the teacher evidence of what she has accomplished. This may be a written account of an experiment, drawings, as of the parts of a flower, or recorded observations, for example, on differences in the growth of seedlings in light and in the dark. If the work is faulty, it must be repeated during her next visit to the laboratory.

*Conferences.* When a unit of laboratory work has been completed, a conference is called at which conclusions and applications are discussed. The time is then ripe for a minor test. This is for the purpose of informing the girls as to the thoroughness of their grasp of facts and principles. It is primarily for the enlightenment of the students. The

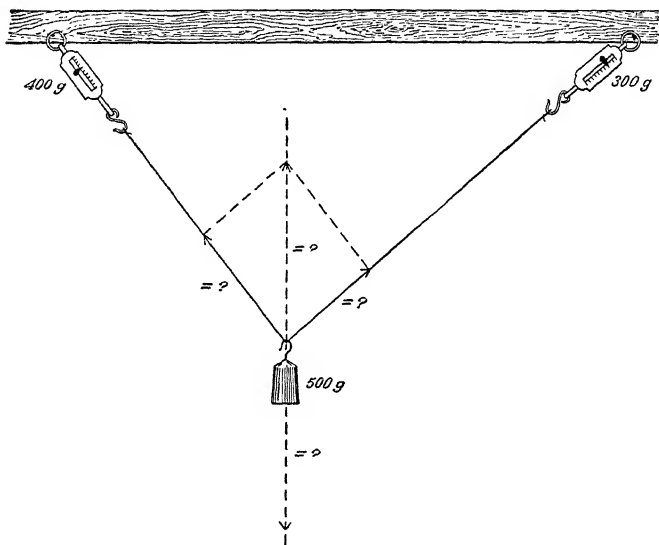


FIG. 2.

teacher may or may not collect the papers and record ratings.

The nature of the minor test varies according to subject matter, age, and intelligence of the students and the ingenuity of the teacher. It may be a test of ability to recognize and distinguish specimens, as after a study of rocks and minerals; the drawing of diagrams may be asked for, as after laboratory work on reflection and refraction; it may

take the form of a mimeographed list of questions placed in the hands of each student, followed by a corresponding list of answers; or again it may be a device for testing power to apply principles presumably learned to new problems, or to distinguish between correct and incorrect statements. A successful test of the pupils' grasp of elementary principles of mechanics has been devised by another teacher. The apparatus here pictured is suspended on the wall or blackboard and the pupils are required to solve the prob-

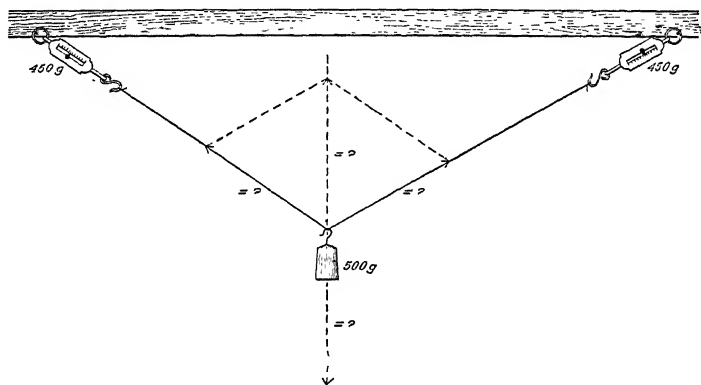


FIG. 3.

lems involved. This provides occupation for groups of students while other groups are solving different problems at their desks.

*Socialized review.* After the entire class has finished the minimum assignment, a socialized conference is held for the purpose of reviewing the work covered. The conference is in charge of a chairman appointed by the teacher. Her duties are to announce the topics, to recognize speakers, and to hold them to the points under discussion. If, at the close of the discussion, she feels that something of impor-

tance has been omitted, the chairman has the privilege of bringing it before the class. The teacher's part is to observe the manner in which individuals are participating and

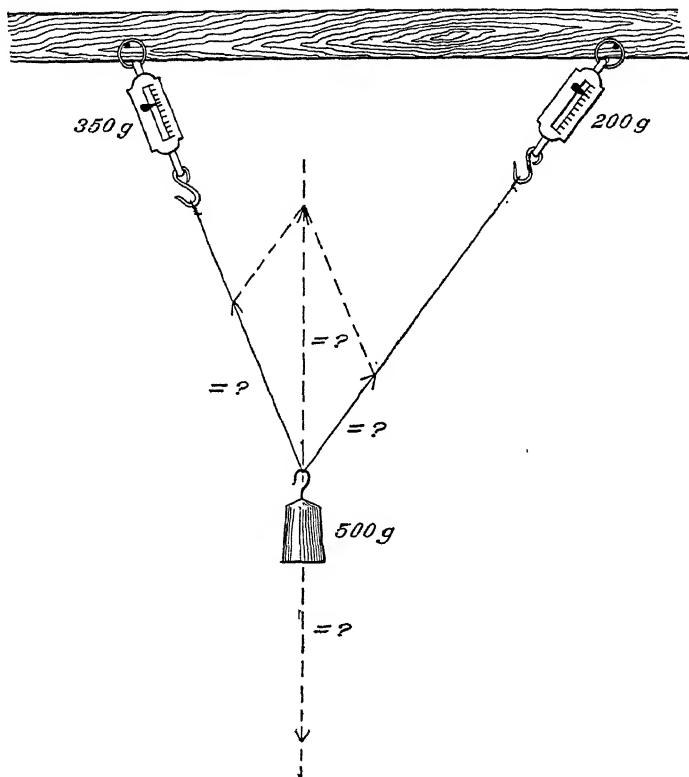


FIG. 4.

to act as referee in case the debate threatens to become an altercation or to lead to an impasse. If there is time and opportunity, optional topics are included in the socialized

review. If not, a special period is arranged for their presentation.

*Check-ups and tests.* The socialized review is followed by the major test. In some of the higher grades students who have done extra work are allowed to substitute a summary of what they have learned for one of the questions. The grade for the entire assignment is determined by the mark made on the major test and the satisfactory accomplishment of the laboratory work. If a student fails in one month's work, she is allowed to go on with the work of succeeding months, but must remove the one month's condition during the following term. If she fails in two or more months' work, she is advised to drop the subject or else to repeat it in a restoration class, in summer school, or during the next term.

*Restoration class.* Division into groups is absolutely necessary in restoration classes. The following plan was adopted in conducting such a class of 9 *B* grade. Seventeen girls, all unsatisfactory in one or two assignments, were divided into three groups as follows: (1) Those repeating September's assignment. (2) Those repeating November's assignment. (3) Those repeating December's assignment. An alternating arrangement of conferences, laboratory periods, and minor tests was then put into operation.

ASSIGNMENT	1ST DAY	2D DAY	3D DAY	4TH DAY	5TH DAY
September	Conference	Laboratory	Conference	Minor test	Laboratory
November	Laboratory	Conference	Laboratory	Conference	Test
December	Test	Laboratory	Conference	Laboratory	Conference

One of the chief difficulties in using this plan was the lack of space available for the display of material needed.

**Advantages to students.** The Dalton Plan should have certain advantages for the students. Greater opportunity is certainly offered for individual progress according to interest and ability. It ought also to lead to a greater self-dependence on the part of the pupils and to an increased general sense of responsibility. One of the teachers thus sums up the advantages which she believes have accrued to the students from her use of the plan. (1) A certain degree of independence is forced on the members of each group, since they are all of about the same ability. (2) Although the lower groups are not directly helped by the highest, they nevertheless see the results accomplished by them. (3) The pupils most in need of help get it at the time they need it and from the teacher. Thus, much of the temptation to copy is removed.

Insistence on repetition of laboratory work until it is satisfactorily accomplished we hope will lead to increased accuracy of observation and increased care in writing experiments and making drawings. As a result of many years' experience in teaching science I feel that habits of concentration and accuracy, however difficult, are in general more readily established than habits of correct reasoning. The power correctly to apprehend relations, which is fundamental to the drawing of valid conclusions, appears to be more strictly limited by inheritance and not to the same extent improvable.

One of the teachers in the department has already made a beginning towards answering the question as to how far ability to observe is improved by the plan. In the fall, near the beginning of the term, she chose fourteen girls in one 9 A class and fourteen in another class meeting the immediately succeeding period. As nearly as possible the

two groups were equivalent in general intelligence and reaction.

Those in Group I were given the assignment and required to make their own observations without any assistance from the teacher. This occupied one or two laboratory periods. A conference was then held for discussion of the observations and their significance. Those in Group II made their observations as a group under the constant guidance of the teacher. Incomplete and inaccurate observation was immediately corrected.

The results obtained with Group I, *where each is responsible to herself for accomplishing her task*, were then compared with those of Group II, *where guidance is ever at hand either from the teacher or from the pupils in the class*. The two methods differ in the *length of time* the students work by themselves and thus in the *amount of work done* before the teacher intervenes. The question is: Will the children who are made to rely on themselves for a longer space of time, and over a larger portion of the work, be forced to *observe more accurately and completely*? At the beginning of the term the teacher gave each group specimens of dragonflies to observe and compare, and at the close of the term specimens of moths and butterflies. The scores made on the number of differences observed were then compared. We hope next term to continue this experiment with larger numbers of students. The results so far obtained, although necessarily inconclusive, appear to indicate a greater gain in power of observation among the members of Group I as compared to those of Group II.

One might expect, if the progress were actual, that it would be reflected in the percentage of failure and promotion. This result is realized in grades 10 *A* to 12 *B*, but

not noticeably so in 9 *A* and 9 *B*. A comparison of the approximate percentage of failures at the end of June 1924 and the end of January 1925 is given below.

JUNE 1924		JANUARY 1925	
9 <i>A</i>	21%	18%	<i>After restoration</i> 14%
9 <i>B</i>	16%	20%	<i>After restoration</i> 13%
10 <i>A</i>	21%	8%	
10 <i>B</i>	25%	9%	
11 <i>A</i> and 11 <i>B</i>	5%	3%	
12 <i>A</i> and 12 <i>B</i>	12%	4%	

Aside from these more tangible evidences of the success of the plan, there is the opinion of the teachers concerning an improved attitude on the part of the pupils. There is apparent a more "evident desire to observe carefully, to plan and work thoroughly. There is less and less need for supervision to guard against a too great dependence of weaker students on the brighter and more energetic ones. This is due not only to the method of instruction, but as well to the self-testing. The work of a term becomes increasingly difficult and yet one hears statements like these: 'It was easier to do this assignment than the last one' — 'I am going to do better this month, so I can take some optional work.' "

In the higher grades at least, the girls, in learning to criticize their own work, have become more discriminating and occasionally offer comments that are helpful to the teacher. For example, — "This is a fine assignment," or "The girls don't quite understand the labels on the specimens. Wouldn't it help to add thus and so —?"

**Advantages to the teachers.** However teachers may vary in actual ability to teach, I believe they would come to a pretty general agreement if asked to name the qualities that the ideal teacher should possess. Among these qualities are foresight, insight, system, and resourcefulness.

Assignments oblige teachers to plan their work in advance and to make their directions so clear and specific that the children may be able to follow them for the most part unassisted. This necessitates an effort on the part of the teacher to put herself in the place of the pupil and thus to gain a fuller and more sympathetic view of the pupil's state of mind. When the assignments are planned in committees, there is a valuable exchange of ideas and a degree of coöperation among the teachers that might otherwise not take place.

Individual differences of mind and temperament are likely also to be more sympathetically appreciated and more certainly corrected if the method of teaching by groups is adopted. Here, as in all teaching, the smaller the number of pupils per teacher the more surely will this happen. There is a limit to the individual help and attention which even the most devoted teacher can give when overburdened with many and large classes. The clerical detail alone under such circumstances becomes a considerable task.

Successfully to plan assignments and to manage groups within a class means systematic arrangement of material and apparatus, in order that they may be used with the greatest economy of time and effort. A demand is made also upon the teacher's ingenuity and resourcefulness. The qualities of insight and ingenuity are exercised as well in the devising of tests which may be put into the hands of

the pupils and used by them with a minimum of direction from the teacher.

No one would claim that these qualities are not displayed by a good teacher under any circumstances, but the more frequently a method of instruction offers opportunities for their exercise, the better the method.

## CHAPTER VIII

### THE DALTON PLAN IN MATHEMATICS

Teachers who have become accustomed to using supervised study in their classrooms will not find the technique of the Dalton Plan completely new; the chief innovations will be those centering around the assignments, time freedom, and the handling of check-ups.

**The assignment.** *The preparation.* The first step in writing an assignment is to make a careful outline of the term's work and to divide this into small, preferably weekly units, consulting the calendar and making allowance for all holidays and examinations. When this detailed and dated outline is completed, there will be for each week some definite work to be accomplished or a definite process to be mastered. In algebra, it may be the addition of fractions; in arithmetic, the calculation of bank discount; in geometry, the three theorems proving triangles similar. Then the teacher must write the assignment, remembering that it is merely a substitute for an oral presentation, and keeping a mental eye fixed on the pupils and a vivid imagination busy forecasting their difficulties.

*The type necessary for younger pupils.* Hence it follows that, frequently, the assignment must supplement the text, giving additional explanations or information or exercises. Difficulties must be indicated by pivotal questions, and at first, and always with the younger pupils, much help must be given and many questions asked to indicate the trend of

the textbook and to attract their attention. See the following assignment for beginners in algebra :

Bibliography: *Modern Algebra*, Schorling-Clark

I. What is the title of Chapter I?

The relation between numbers may be expressed in four different ways.

II. The first way is by the graph. What is a graph? Study the graph on p. 1. What does the horizontal scale on this graph show? The vertical scale? Now work examples 3-6. Write down your answers before you hear other girls give theirs, so that you will be better able to judge your own work.

III. The second way is by the use of a table. Read about Carl Beeker on p. 2. Do you know of any tables used in everyday business? Work the examples on pp. 2-4. Remember to write down your answers before consulting any other girl.

IV. The third way is by means of the formula. Study p. 5. In a formula what do the letters represent? In the formula  $P = 4s$ , what does  $s$  represent? What does  $4s$  mean? If you cannot answer these, work all the examples on pp. 6-7.

V. The fourth method. Study pp. 8-9 to find the fourth way of expressing the relation between two numbers. Which of the four ways do you like best? Why?

In form, the assignment must be in clear and simple English, with short sentences instead of long ones, with the different steps in a fairly long process consecutively numbered, and, at least for the younger pupils, with suggestion about practice problems stated not in a polite form of suggestion but rather in the imperative mood.

At first, a teacher often assigns too great an amount of work for the pupils to do well, — too many examples for drill, too many originals to be solved. We found through experience, perhaps because the Dalton Plan places so much emphasis on individual work, that about half as many practice problems as we used before in algebra and

arithmetic are needed for pupils of average intelligence and perseverance. They must be given time to do the work well and to be sure of obtaining the correct answer. We often assign, for instance, the odd-numbered examples in the text for the week's practice, then give a check-up. Those whose failure to pass this shows their need of additional practice must work out the even-numbered examples.

*Provisions for maxima.* The pupils of greater ability, who do not need as much drill work, are taken care of by means of maximum assignments. In our 11 *A* work in geometry, we are experimenting with two types of extra assignments. This course has hitherto been a difficult one to handle, for it contains some very quick pupils, some very slow ones who have almost reached their limit in geometry, and others who often try to seem as slow as the slowest. At present we are trying to meet this difficulty by using maximum *a* for the girl capable of a little more than the minimum, and maximum *b* for the bright girl. Here is a sample of one week's assignment.

I. By solving the exercises assigned for these weeks, we shall review and apply some of the knowledge we acquired last term.

II. Review the statement of the sixteen theorems in Book III.

III. Solve in Durell and Arnold, p. 210, ex. 51.

IV. Solve in Durell and Arnold, p. 211, ex. 52, 1-3.

V. Maximum assignment: *a.* ex. 52, 4, 6, 7, 8, 9 (use para. 324); *b.* ex. 52, 5, 10, 11, and 12.

The only test of an assignment is an empirical one, — the success the pupils have in working it out. Hence it follows that schools with markedly different types of pupils need different assignments. To understand our assignments, the reader must remember that most of our pupils speak at home another language than English — with all that

that entails of different cultural backgrounds — and also that their gifts do not lie in the direction of mathematics.

**Time freedom.** The amount of free time given to any class is a variable depending on the composition of the class, the subject and the phase of the subject, and the teacher's methods of handling conferences. In our department, the weekly norm is one conference of a full period, and one test day. Exceptions from this norm may occur any time when desirable and do occur always in the work in beginning geometry where the class meets daily in fixed conferences. A conference may be of the length of a period, or shorter; may be given to the entire class, or only to a few girls.

*Types of conferences.* (1) Class conferences — three kinds. There are three types of conferences to which the whole class may be called. First, the group may be called, often in the beginning of the week, for a bird's eye view of a new topic, for explanation of a new process and sufficient drill in it to enable the pupils to continue independently; this type of conference is seen most frequently in arithmetic or algebra. Secondly, the group may be called, often just before the test day, for the purpose of summarizing the work just completed, of explaining the difficulties encountered, or of clinching the facts learned or processes acquired; this type of conference is seen generally in geometry. Thirdly, the entire class sometimes has to be summoned to conference as a penalty for lack of faithfulness — *e.g.*, commercial arithmetic classes, who may not be of scholarly material, must often be summoned every day for ten minutes to ensure daily practice of rapid calculation.

(2) Special group conferences. Conference of special groups may also be called. Those trying the maximum may be summoned — often to an informal discussion around

the teacher's desk; as also may the slower girls. These last may be selected in various ways; they may be those who failed a certain test and who need more help before the second test; or they may be those whose past failures show them chronically weak or lazy; or they may be those who come voluntarily.

*Technique of handling the conference.* No definite rule can be given as to the technique of handling conferences; the teacher must keep clearly before her the aim in such work — to use the method that will best help the pupil to learn certain facts or points of view or to acquire certain abilities. The teacher may conduct the conference in the form of supervised study, or of an oral recitation or oral drill, or of a discussion carefully guided by well chosen questions, or, rarely, she may prefer herself to present the work — a method desirable only if the presentation is brief, suggestive, and attention-arresting.

Obviously, the teacher in all conferences avoids giving unnecessary help, and so handles any conference that is in the nature of a summary, or review, that her help is of no value to those pupils who have come unprepared. For instance, it is often wise to refuse, in a general conference, to solve a problem completely; help can be given over the difficult places, and the remainder left for the industrious pupil to finish. Of course, this in no sense implies that adequate help should not be given to those whose work shows honest and unsuccessful effort — the teacher must always discriminate between faithful slowness and laziness disguised as mental slowness, and must help the deserving ones, often individually.

Then, too, conferences should be suited to the ability of the girls involved; for instance, after the completion of the

11 *A* assignment given above, the slowest girls were helped by carefully outlining the originals in the minimum. Those trying maximum *a* were given for each original merely a hint sufficient for an industrious girl of average ability. Those trying maximum *b* were told that sufficient help was given in the book.

*Individual help.* The problem of individual help is much the same as in supervised study; the aggressive pupil will clamor for attention and help, but the shy, the slow, and the lazy need careful guidance and, sometimes, spurring on. Of course with large groups, it is not possible to give much individual help — the amount of time in the school day is a fixed constant! — but some opportunity should be given for such work. For such help, some teachers save one of the weekly periods, others try to save a few minutes from each period.

**Check-ups.** If the pupils work at their own pace, it is obvious that they soon will be at points widely scattered in the work. This of course is undesirable, so the teacher tries in every way possible to keep them fairly close together. The rapid ones may be taken care of by means of maximum work; the lazy and the slow may be stimulated by some such obvious device as requiring them to report daily to class and to hand in daily certain parts of the assignment. This often eliminates such laziness, and enables the teacher to give needed help to the weaker ones.

*Administration of check-ups.* Yet, with all such devices we have had to rule arbitrarily that at two or three crucial points each term — such as the beginning of the third book in geometry, the introduction of logarithms, the teaching of bank discount — the entire class is to start the new topic together. This permits the entire class to have the advan-

tage of a careful presentation, and works no harm, if the laggards are told that if they can master this new work, they will be given another chance at the old unfinished work. This fresh start not only encourages the slow ones, but also serves automatically as a sieve to sort out those hopelessly behind from those who are behind merely because of absence or temporary laziness.

*Self-testing devices.* As, under the Dalton Plan, each pupil works her own way through the assignments, doing the indicated work and receiving help from conferences, she soon realizes the need of testing to be sure that she knows the ground already covered before she advances too far.

(1) Algebra and arithmetic. Here the self-testing devices needed by the pupil to assure her that she knows the work are obvious and easy, — answer books or timed practice tests such as are found in some of the new texts. The teacher shows the pupils how to use these and tries to inculcate a sense of responsibility. She tells them frankly that their work will be considered satisfactory only if they pass the check-ups and that they cannot expect to pass these if they do not independently and correctly complete the assigned work.

If a pupil fails to pass the first check-up, she may try it again, after a *reasonable length of time*; say three or four days. During this period, she must again work carefully through the assignment, or she may practice on different material. If a pupil fails to pass the second check-up she must convince the teacher that she deserves another trial. If her failure seems due to lack of study or practice, an ingenious teacher can require such evidence of her work — problems or proofs carefully written out — as will insure adequate preparation. If her failure seems due to lack of

comprehension, she can be told that this repeated failure shows she did not fully understand the previous work, and so she must repeat all work, check-ups included, from the beginning of the term. If neither of these methods seems desirable, she can be told to continue with the remainder of the term's work and to try to do it so successfully that the teacher will feel justified in giving her another chance.

Careful construction of check-ups is obviously necessary. These must be of equivalent difficulty. More important, still, many of these tests must be easily marked, else the teacher will be swamped with papers. With all the recent experimentation on algebraic tests, there should be no difficulty in making algebraic check-ups. The arithmetic check-ups are fairly easy to construct. Before reading the sample assignment for a week's work in arithmetic and one check-up on that work, the reader should know that our classes in commercial arithmetic are composed of girls who have had so little formal arithmetic recently, and who have so forgotten all that they once knew that we first make sure of the most elementary part of the subject. Here is the assignment for the second case in percentage:

Bibliography: Finney and Brown, *Modern Business Arithmetic, Complete Course*; C. E. Birch, *Applied Business Calculation*.

1. In Birch, practice pp. 29, 39, 47. Lesson 39 gives you a method of checking addition. What other method do you know?

2. In *F* and *B*, study the examples in the second case, and practice the oral work on p. 158. When you have solved correctly the odd-numbered examples on p. 159 and numbers 13 and 15 on p. 160, copy them and give them to your teacher. Report for a check-up on the first two cases of percentage.

3. In case you fail in this check-up, work and hand in the even-numbered examples on p. 159 with numbers 14 and 16 on p. 160. Report for another check-up.

Here is the check-up for that week. Note the insertion of one problem under the first case. For a passing grade, four problems must be correctly done.

1. What per cent of 18 is 12?
2. What per cent of 25 is 45?
3. A man saves annually 4% of his salary of \$1650. How much does he save in 4 years?
4. Alice has 2 brothers and 2 sisters. What per cent of the children are girls?
5. A school of 600 has 582 present. What per cent of the school is absent?

(2) Geometry. As all teachers know, it is more difficult to find such check-ups in geometry. Some tests must always be the old-fashioned kind consisting of proofs; but there is great need for others, more easily marked. Numerical problems are well-known and popular, but there is a great field, comparatively unworked, of questions that require a rapid application of facts and very few words to answer. Here are two simple examples, familiar to all.

*a.* Given triangle  $ABC$ ,  $BR$  bisects  $AC$  at  $R$ .

Draw the figure and mark the equal parts in triangles  $ABR$  and  $BRC$  and write the reason why the triangles are equal.

This is given early in geometry and illustrates the necessity of assuming what is given.

*b.* Given circles  $O$  and  $O'$  intersecting at  $A$  and  $B$ ; lines  $OO'$  and  $AB$ .

Draw the figure. What is true? Why?

The point here is the recognition of the theorem to be applied and the exact statement as to which line is bisected.

Maximum assignments are checked up the same way — by inserting in the first check-up a maximum question and arranging the credits so that no girl may receive a good mark

without doing the maximum. The first check-up given on the assignment in 11 *A* Geometry quoted above had four questions for the minimum, the successful completion of which merited the grade of F; another more difficult question was given for maximum *a*, whose successful completion merited the grade of G; and a still more difficult question was given for maximum *b*, which merited the grade of E.

**Special difficulties in the use of the Dalton Plan in geometry.** To most teachers the Dalton Plan seems feasible for algebra and arithmetic, but, at first sight, impossible for geometry. Experience has shown us, however, that pupils, — ordinary pupils of no special mathematical ability — can be trained during their study of the first book to use in later work mimeographed assignments. To do this, a pupil must learn how to judge for herself if a theorem “fits” as a reason; she must have her perception of spatial relationships so developed that her figures will be accurate and suggest true deductions; and she must be consciously and subconsciously trained in the development of the sense of individual responsibility.

During the first three or four months of geometry, we have daily fixed periods, with no mimeographed assignments. We use the recitation method only when it is the best means of “putting over” the desired facts or points of view. All teachers know many better means can be found; for instance, just outlining and discussing a new proof, with the books open, is often more helpful, and serves to show the pupils how to study a new theorem and to realize that they must understand each step and know the reason for each statement. A good device for strengthening associative ability with theorems is to urge the pupils, when doubtful as to the correct reference, to leaf rapidly through their

texts. We motivate this work constantly by referring to the future, when they will have mimeographed assignments, and to the more immediate check-ups.

We give the pupils time freedom as rapidly as they are able to use it intelligently — at first, and early in the term, they may have fifteen minutes in class in which to accomplish certain work independently, and later, longer periods of time, till, when parallelograms are reached, they are often given freedom for two or three days.

In cultivating the sense of individual responsibility, — the crux of the whole matter, — the teacher helps by a careful use of check-ups, giving some merely to teach the necessity of following carefully all directions. For instance she can ask if there is any question about a proof, in the body of which the author has inserted many “Why’s,” and when no uncertainty is admitted, she may have the pupils write and hand in certain unstated reasons. She can unexpectedly ask them to write certain definitions previously assigned for study — a test all the surer if some of these have been purposely omitted from the classroom discussion. There are check-ups of their grasp of spatial relation: for instance, an angle may be drawn on the board in an unusual position and the pupils may be told to draw one like it on their papers, and then to draw also another angle with its sides parallel to those of the original angle. They then are to state whether these angles are equal or supplementary and to prove this statement.

Especially must pupils be trained in self-correction. At first, their geometrical ability in this direction is very slight, so, to prevent too much wandering from the path, we limit their opportunities. If their textbook omits the reason in a proof, we tell them to write, each one, the reason, and then

to compare it with the correct reason orally given. They can, in the beginning, learn to understand geometrical vocabulary and to criticize their own drawings by some such scheme as this: the teacher may slowly dictate directions for drawing a certain figure, then pause, then repeat these directions, meantime drawing the figure on the blackboard. Then they can be asked to compare, individually, their figures with that on the board, and be told, if there is any difference, to consult the teacher. This is another device for developing self-criticism: we tell them to construct the altitudes in a triangle and then to compare their work with a sample construction carefully done. If they judge their work correct, they are to hand it in; if they are uncertain, they may consult with their neighbors, or their teacher, till they think that it is correct. The following day, all incorrect work is returned by the teacher, with explanation and criticism. Many of these devices and check-ups are old and timeworn to the teacher, but new and absorbing to the class.

The Dalton Plan brings to light many and old possibilities. With its essential factors of time freedom and individual work it gives the teacher every opportunity to use these devices in helping the child to learn.

## CHAPTER IX

### THE DALTON PLAN IN LANGUAGES, ANCIENT AND MODERN

Difficulties peculiar to teaching languages: grammar and pronunciation. The teaching of foreign languages presents some problems peculiar to itself. The ordinary child, on coming to high school, has no conception of grammar. He does not know the parts of speech. He is incapable of distinguishing the subject of a verb from its object. Therefore he cannot be given a book and an assignment and told to work unassisted. The rules are unintelligible to him. It is useless to talk to him about the subject of a verb agreeing with the verb in number and person when he does not know what a verb is, or the meaning of subject, number, or person. All this requires more explanation than can be put into an assignment, or than can be found in the bulkiest of textbooks. Partly for this reason, the beginning classes are at first required to meet every day and to be taught under the direction of the teacher. It is necessary, too, to drill constantly in pronunciation. The assignments, therefore, for beginners, instead of being complete directions, by following which the pupil can work alone, are merely outlines of the work for the coming month. The pupil is guided over every step to be taken. After a month or two the more capable pupils may be given one free period a week. This relieves them of the monotony of the constant repetition which is so tiresome to them but so essential to the less fortunately endowed.

Another difficulty is that the pupil must not only acquire

a large fund of facts which were unfamiliar to his mode of thought, but must also keep these facts in mind for as long a time as he studies the language. In some subjects the term's work is a unit in itself, and the pupil's success in the second or third term is in only a slight degree dependent upon his retention of the facts learned in the first term. In language it is far different. The first year is spent almost entirely in learning the grammar and the pronunciation of the language. Quite a large bulk of rules and of vocabulary must be memorized. This cannot be laid aside the second year and another set learned, but it must be retained and added to. This constitutes one difficulty in the study of language for the average pupil. In order to insure the retention of these facts, constant review is essential. Constant practice also in the use of the rules and vocabulary is necessary, for a language is an art to be practiced, as well as fact to be learned. In the case of modern language, in addition to the training of the memory, there is the more or less necessary physical training of the ear and of the vocal organs. Just as in music, this requires constant drill. Experience has shown that the four or five periods allotted to language provide none too much time for this phase of the work.

The ideal condition would, of course, be to have a class of about twenty-five pupils, all sufficiently equal in ability to do about the same amount of work in the same time, so that the teacher could drill, test, inspire, and otherwise teach, the whole at one time. But under existing conditions, even with a set course of study and with examinations according to which pupils are passed from grade to grade, we find our classes containing pupils very uneven in their attainments. It is only occasionally, and usually in the upper forms, that

the pupils of the class, although varying, are yet sufficiently uniform to keep together profitably. In such ideal conditions no division into definite groups need be made. Such groups as are formed are temporary, containing those who have fallen behind for some reason and so need extra help.

**Necessary modifications.** Realizing this need for a maximum amount of supervision, we were confronted, when we undertook to introduce the Dalton Plan into the language department, with this difficulty. If we allowed "free time," permitting individuals to proceed at their own rates of speed, we should soon find it impossible to give the requisite amount of time to oral work. On some days, because no one would be ready for a conference, the teacher would be comparatively idle; on other days she would be overwhelmed by varying demands. Thus the whole of her time would not be employed to the best advantage.

In order, therefore, to provide the supervision which we consider essential, and, at the same time, to allow as much freedom as possible for pupils of varying abilities, we divide our classes into groups. In most classes it is easy to form two or three fairly homogeneous groups. It is obvious, however, that if the teacher takes these groups separately, no one of them will have the full quota of her time. Moreover, if these groups are allowed to work each at its own discretion, there will soon exist some of the same difficulties that would occur if the individual pupils were allowed to work as they chose. Therefore it seems necessary to require that certain assigned parts of the work be done on certain set days. Those who are not ready must report in spite of that fact, and take the consequences for their poor work. Allowances are made, of course, for absences, illness, and other unavoidable causes of delay.

Those who have fallen behind, through indolence, illness, or lack of ability are given special time for conference and for "make up tests." They are not allowed to take these tests whenever they wish to report because those who are inclined to straggle are the very ones who need to be compelled to bring their work up to date; and secondly, those who are not ready to take their tests with their group are usually the very ones who need the most careful proctoring, and the teacher's time is too valuable to be spent in proctoring small groups.

**Several methods of group management.** *Opportunity for maximum and minimum assignments.* These arbitrary regulations, however, do not exclude the possibility of allowing the abler pupils opportunity for maximum work. The following scheme of grouping provides a manageable situation and at the same time does not hold the rapid girls down to the achievement of the slow or average, as so often was the case under the old form of class procedure.

The class is divided into two distinct groups, of which the more able only are permitted to do the maximum assignment. All meet once a week for grammar and composition. On this occasion all must be prepared, because all need the drill and explanation. For reading, the class is divided alphabetically in half. The first half is reading *Madame Thérèse*, the second *Mon Oncle et Mon Curé*. All of the first half meet on Tuesday to read, translate, and converse. During the first twenty minutes of the period, only those whose pronunciation is good enough to be of value to all are allowed to read and to talk. These are then allowed to leave the room, if they wish, and the poorer are during the remainder of the period given such drill as they need. This has the advantage that the better ones do not need to listen

to the boresome drilling of the poorer pupils and the poorer get the benefit of the good pronunciation of the others, and can have their own drill without the embarrassment of the presence of those who can do so much better than they. The second half of the class proceeds in the same way on Thursday. Those belonging in the first group who wish to do the maximum meet with the second group on Thursday and read *Mon Oncle et Mon Curé* along with the second group. If, in addition to ability to read rapidly, they have good pronunciation, they are dismissed with those who go after twenty minutes; if their pronunciation is poor, they recite with the poorer group. These, therefore, not only have the opportunity to read two books instead of one, but they may also improve their pronunciation under the supervision of the teacher. Those in the second half of the class who are doing the maximum, meet in the same way with those who are reading *Madame Thérèse*. This method makes four groups possible: those of good and of poor pronunciation, those of good and of poor ability in reading. Friday is left free for still another group: those who are behind, or who need special help. This may seem a complicated method and it may seem inflexible, but it becomes simple in practice. All are expected to appear with their grammar and composition done on Wednesday, but those who have failed to do so, meet on Friday to make it up. All are expected to appear on Tuesday or on Thursday, or on both days (if they are doing the maximum) with their reading prepared; again, those who have failed may make up their work on Friday. Those who find the maximum too difficult for them may drop it without in any way interrupting their work on the minimum. Then, also, those whose pronunciation improves may easily be shifted from the

poorer group to the better. This flexibility of the plan is a great advantage both to the slow and to the superior pupils.

A class in Caesar illustrates another method of group management. The class is divided into three groups according to ability. The two poorer groups come to "conference" on Monday to prepare part of the week's work with the help of the teacher. All come on Tuesday for drill in grammar and composition, and for help in the most difficult portions of the translation. The two poorer groups come again on Wednesday to be checked up on the part of the week's translation required up to that time, and to be helped in their work. On Thursday the poorest group and also those who have fallen behind come for help. On Friday all meet and the week's translation is done in class in what might appear to be an "old fashioned" recitation. It is not such, however, because part of the work is review for the poorer groups, but is new for the best group. Moreover, the very poor ones who usually take up so much of the class period with their boresome slow recitation, to the detriment of the general interest, need not be called upon at all during this period. They can be checked up on Wednesday and Thursday. It might seem that these poor students get more than their share of the time. They do. They always have taken more of the teacher's time and energy than the capable. The difference is that under this system the good pupils need not be bored by their hesitating recitations, but may proceed with other work, with the maximum, if they like. This maximum consists of a longer assignment in the translation, and is checked up in class on Friday when all are present, and all can get the content of the passages omitted in the minimum.

Another method of managing the reading of a maximum and a minimum is by assigning as a maximum a certain amount more in the same book than that read as a minimum. Those who prepare the maximum read it to the others, or give a summary in French or in Spanish. Those who have done only the minimum, therefore, get the content of the portions which they omit, and also have the benefit of hearing the French or Spanish.

Still another method of treating the groups is to require all the class to meet on Tuesday to go over the week's assignment with the teacher, who then explains difficult points, suggests a proper method of dividing the work, gives some drill in the points explained, and announces the program for the week. The following Monday all are to be checked up in this work. Meantime those who felt that they did not understand the explanation come on Wednesday to study under the supervision of the teacher. On Thursday all are required to come for drill, conversation, etc. When Monday comes there is a short check-up; if it is written, it is of such a sort as to be easily marked. It may be oral and inspirational. It may be written by some on the blackboard and by others on paper. But in some way the teacher must have a "mark" for every pupil present. This testing ought not to require more than half the period. The remainder is spent on the maximum. While the maximum is being heard, those doing only the minimum may be doing some exercises which they need, or they may be studying quietly or in groups. Five minutes may be reserved at the end of the period for solving any difficulties which these have found during their study. If the maximum supplies a lacuna in the minimum reading which all ought to hear, those who are not doing the

maximum listen and get the content and as much else as they can.

*Opportunity for training in self-reliance.* It can be seen, and might be raised as an objection, that in this system of grouping the brighter pupils are left for much of the time on their own responsibility in preparing their work, and thus tend to develop independence, whereas the poorer ones are required to keep rather rigidly to a schedule, and have but little responsibility placed upon them. This is the fact. It is found that, as a rule, the least capable mentally are incapable of assuming responsibility. The good pupils who are able to work without much assistance from the teacher are the ones who are to be found regularly in the teacher's room preparing their work in an orderly manner. On a "free" day the poorer ones who need help are not there. It may even happen that the same pupil will belong to the responsible group in one subject and to the irresponsible in another. She may work joyfully and faithfully in the one subject; but, having fallen behind for some reason, or being less capable in the other subject, instead of facing the difficulty, she may shirk and fall more and more behind unless the teacher compels her to come with a set task done in a set time. The less capable, then, and the irresponsible, need to be held rigidly to their tasks. But they need also to have developed the power of assuming responsibility, and the more capable also need supervision in order to keep them from falling into bad habits and to make them more capable of self-direction. Since this cannot be done for individuals to any great extent, it must be done for the groups. One method of developing this sense of personal responsibility is to teach the pupils to judge themselves in their work. We have been able to invent nothing that is

new in the matter of self-corrective devices, but we use old ones for the purpose. According to one method pupils are directed to write out work and to compare their results with the book. This is, of course, most effective in the lower forms where many paradigms must be learned and constantly reviewed. The work in composition and reading in the upper form is less easily tested in this way, first, because there is seldom only one way of expressing an idea, and secondly because the poorer pupils, who are most likely to have errors of a serious nature, are the ones who are most easily satisfied with their attainment. They are the ones who have the difficulty in seeing their mistakes even when these are pointed out to them. In the case of so simple a matter as detecting mistakes in paradigms, some have difficulty although they have the identical forms on the printed page before them. These must be trained, and must be encouraged to train themselves in seeing what is there. The most capable can, of course, to a certain extent correct even their own compositions. If a key is given them, they can often judge whether their own expressions which differ from the key are mistakes, or are varying methods of expressing the thought. They know their rules well enough to recognize a mistake. The less responsible and less capable need to be trained in this, and sometimes they develop so well as to pass from the poor group to the better one, where they are allowed more freedom and more responsibility.

But the majority in school as out are incapable of much initiative. In life they will be followers. They should be trained in systematic effort, and in methodical habits. They can get a great deal of pleasure and profit from the study of a foreign language, but to give them the idea that

they will ever be capable of directing others is as dangerous as to place an unskilled person in the driver's seat of an automobile.

Many of these must continue to do their work under the teacher's eye, otherwise they will misuse their privileges and succeed only in developing facility in shirking.

**Assignments.** There is perhaps nothing to be said about the value of the assignments in language which cannot be said equally well of those used in every other subject. Having a definite amount of work mapped out and printed for each pupil is an advantage which can be seen by all. Both teachers and pupils know exactly what is to be done and in what time. When a test or examination is to be given, there is no doubt in any one's mind as to the limits to be covered. A pupil who is absent need not have his lessons mailed to him. He already has them. When he returns he knows exactly what he has to make up and so does his teacher. If a teacher is absent, the most inefficient substitute can carry on the work, for it is already planned; the pupils, too, are trained after the first few months to follow the directions of the assignment. There is no rushing at the end of the term to cover the limits, because there has been no dragging at the beginning. Pupils, even those of unmethodical minds, find satisfaction in having a definite task and in crossing it off as done. Nothing has been devised that is a greater aid to methodical habits of work.

**Tests.** In order to destroy the absurd notion in the minds of some that when a week's work was successfully accomplished it was left behind forever, longer tests, covering the work of a month, or more, are given. These may, or may not, be announced on the assignments. Some teachers have the regularly understood practice of giving a

test at the end of the first two weeks of every assignment. This test includes the work of the last two weeks of the previous assignment. This time is chosen in order to avoid congestion both for the teacher and for the pupil at the end of the month. Those who fail have an opportunity to take the test once more. On this retest the highest average possible is a bare passing mark. This ruling is made to encourage the pupils to be ready to do their work at the specified time, and also to make those who fail feel that they may recover. Those who report as unprepared for the test the first time are included with those who fail, and not given full credit, because they have not kept up to date. The usual allowances are made for absences and other unavoidable hindrances, with, of course, the usual difficulty on the part of the teacher to decide whether or not an excuse is legitimate. No plan will ever be discovered to enable the teacher to be sure that she is meting out even-handed justice.

**Summary.** In summarizing we would say that the Dalton Plan, as it has been carried out in our school, has a great many advantages of its own and need lose none of the advantages of the former system. The flexibility of the plan makes it possible to apply it to any kind of class, or to any kind of teacher. No teacher of language need fear for the integrity of his work, in case the system is introduced into his school. For he can apply it to any degree he sees fit. If he finds that a class is becoming lazy, or inclined to abuse its freedom, he can simply call it to conference every day and have a recitation, as of old, for as long a time as he wishes. Even then he will probably find that there are some whom he does not want in the room on certain days because they know the work which he intends to explain.

He can simply dismiss them from the room or give them some new work to do while he is busy with the others. If a teacher of modern language feels that the oral work is suffering, again he can call his whole class together as often as he chooses, and have oral work as of old. And again he will complain that there is not enough time for oral drill, for he always did so of old. No system can be devised by which in four forty-five-minute periods a week a class of forty, or even of twenty can be given sufficient oral work. It is the flexibility of the plan which gives it its value in this respect.

There is danger that the idea of allowing pupils to proceed at their own pace may become uppermost in the mind of teacher or of supervisor, with the consequent confusion described above. But it is necessary to remember that we are teaching pupils a language, we are not primarily demonstrating any plan, and our plan must be varied to fit the conditions. We are using the plan for the sake of the work, not using the work to demonstrate any plan.

## CHAPTER X

### THE DALTON PLAN IN ART, FOODS, AND CLOTHING

**The Manhattan Trade School experiment.** Some years ago, in the old Manhattan Trade School for Girls, there was a very well-organized system for educating the girl for a life job in a very limited time, as most of the girls could not afford to spend long in preparation. The wheels in that school moved quite smoothly. There was a well-defined scheme of things, and the fact that the students invariably made good and were well placed in trade positions was proof that the training was a success. But in the new Trade School, one is conscious of a sort of Rip Van Winkle feeling. Everywhere, every one seems to know what to do and how to do it with the least possible effort, and so, to reconcile the old with the new — What does it all mean? Simply that “the old order changeth, giving place to new.” A very delightful “new” it is. Seeing is believing, and one wants to begin all over again when the general principles of the Dalton Laboratory Plan are fully understood. Freedom! Magic word — who does not want it? “To draw the thing as he sees it for the God of Things as they are”; especially to do the things one does not like to do and get them done and have all the rest of the time to do the things one loves to do is the great adventure, open to all of us under the new régime.

In the old days, it sometimes happened that a teacher felt that she had taught the most beautiful lesson, poured

out her innermost soul and has been quite thrilled with herself, — only to find that it was wasted on desert air except for the few. What was wrong? The fact that the few got it was evidenced by their reaction. The rest were evidently not in a receiving mood, had lost connections, missed the message, and had given up the battle somewhere along the way. Even though the eyes of the class are with you, who knows where the intelligence is?

Now "assignments" help "the lame, the halt, and the blind." With them for ammunition, we can rub it in with a stick. Do you know that story? A teacher once appeared in the principal's office with a ruler in hand. The chief said, "Evidently you do not believe in moral suasion." Quickly the teacher replied, "Oh, yes I do, but I believe in rubbing it in with a stick."

There is no doubt now as to what was said or what it is all about or when to do it. The plan interferes with nothing good that was ever done before. It gives more time to do the work at hand and places greater responsibility upon the student. And the girls like it. A girl was making a drawing in the art room and was there so long that the teacher asked her why she was staying. She answered that she was enjoying the privilege of loafing. Certainly, any plan that inspires girls to come to class before conference, makes them willing and anxious to stay during lunch period and put in extra time in any subject along the way is very worth while. It gives the teacher greater vision and helps her to see her subject from the point of view of the student every minute of the time.

**Assignments.** In the Art Department of the South Philadelphia High School, before the inception of the Dalton Laboratory Plan, each teacher had already illustrated

every problem in the course of study in miniature, and so each teacher had an excellent guide to follow in writing her own assignments. At first, it was hard to judge how long or how short an assignment should be, but given plenty of time to experiment, the way was soon clear. The assignments were gradually improved upon and are still in the process of improvement as each term comes along. New ideas develop, and as the class works out the assignment the teacher checks up on herself also. Notes are made on the given assignments from time to time and kept for future reference, and the complete set of assignments with suggested changes is given to the head of the department at the end of the term.

There are certain guiding principles which we have learned to follow in planning an assignment. It should be as brief as is consistent with perfect clearness; it should make plain to the pupil exactly what is required; and it should enable her by means of bibliography, general directions as to methods of procedure, etc., to work out her own problem. It may contain a foreword, if needed. The following is a typical assignment for the eleventh grade:

Time, four lessons of one double period each.

I. Problems: Advanced design.

A. Color margins, title, and butterflies. Time, two double periods.

B. Make a stencil design for the corner of a pillow top. Trace your accepted design on your final sheet. Time, two double periods.

Spend your entire allowance of time on these problems, making your design and color scheme as interesting as possible.

II. Aim:

To learn to adapt natural forms to the needs of conventional design and decoration; to learn to apply color in flat washes of harmonious color combinations; to learn to carry a project through its various stages to the finished product.

### III. Material required:

A. A box of water colors; two water color brushes, one large and one small; a paint rag (which bring from home).

B. A right-angled triangle, ruler, pencil, tracing paper, practice paper 12" X 14", and a fund of creative imagination.

### IV. Directions for work:

A. In coloring your drawings of butterflies, copy your colors, trying to match those on the colored plates.

B. After a demonstration by your teacher, proceed with your problems. If you need further help, take advantage of your art conference period. When your October assignment is finished, hand in your work for your grade. Be sure your name and section are on every drawing paper handed in.

**Classroom procedure.** At the beginning of the month, each teacher explains the work that is to be accomplished in four weeks. Illustrations of the work of past classes may be shown to the class or placed on the bulletin board, giving the girls a standard by which to judge their own work. At stated times, the lessons in art are taught or demonstrations are given, and as a girl progresses according to her ability, she is given individual instruction.

As the art classes meet for two consecutive periods, forty minutes each, only once a week, the periods in art are "fixed," which merely means that the girls are required to report at the regular time scheduled on the roster. However, if a girl has finished her work in art and is back in any other subject, she may be excused at any time. Then, too, she may stay right on in the art room to do an optional assignment or study any other lesson. It is a great game!

**Marking graphs.** The last week of every month the pupil's graph is signed or rubber stamped with the teacher's name and rated satisfactory or unsatisfactory. Marks are cumulative, and it is only in the last month that the girl receives her average for the term's work. This may sound

laborious, but if the graphs of the whole class are collected at the same time, stamped with the teacher's name first, then all the satisfactory graphs rated next, followed by the unsatisfactory ones, the problem is merely the work of a few minutes.

We have found the use of the Dalton Plan to result in quickened interest. Freedom and the necessity for choice are stimuli which are bound to develop initiative, resourcefulness, and judgment on the part of the pupil. Since she is free to choose and to budget her time as she needs, she may place pressure on those subjects in which she is weak, and so keep up to grade in all her work. For if she wishes to forge ahead, she must work. Lagging is fatal.

Art has always been to a large extent Daltonized. It has always been of its very nature individual, and each pupil has always been obliged to work out her own salvation, doing her own thinking, planning, and executing. This further demand for initiative and resourcefulness, which the freedom of the Dalton Plan permits, results in quickened interest on the part of the pupil, improvement in the quality of the work done, and a heightened sense of responsibility and self-reliance. Through the problem project, to which the Dalton Plan lends itself perfectly, art offers splendid opportunities for group work. Thus while essentially individual, art may become highly social through coöperative activities.

**Foods and clothing.** The nature of the subject matter in clothing and foods has always necessitated laboratory procedure and individual work. The child makes her own apron or petticoat; she prepares her own portion of cocoa or biscuit. To a greater extent than in studied subjects such as history, languages, etc., her progress must necessarily

be determined by her own individual rate of speed; she cannot be carried along with the class. Consequently the Dalton Laboratory Plan makes little difference in the classroom procedure in these two subjects.

The perishable nature of the material used in the cooking classes limits time freedom to a certain extent. However, under the Dalton Plan, although the child must begin her problem in canning peaches, let us say, with the whole group, she may, if she finishes before the rest, do a maximum assignment or leave the laboratory for another classroom. Any textbook work, also, may be done where and when the individual pleases. To the same extent in the clothing classes, the time freedom feature of the Dalton Plan has changed the classroom procedure.

In another respect, however, the Dalton Plan has made a greater difference in the work of these two subjects. Until the inception of the plan the assignments had been given orally and to the group as a whole. The child who was absent missed her assignment with all its detail of explanation, and on her return was a nuisance to herself and to her teacher. Moreover, the indifferent listener or the child of slow comprehension was sure to miss or to forget some vital point in the explanation. Consequently the printed assignment, which she was asked to keep, was a valuable aid to both child and teacher. In addition to giving in permanent form the multitude of detail in regard to equipment, directions for work, references to occasional book work, it also presented in orderly fashion the natural sequence of the units of work and thus made clear the general aim of the course. The assignments in the Appendix will speak for themselves. A few tests are included to show the possibilities of simple check-ups in the theoretical side of the work.

## CHAPTER XI

### THE PSYCHOLOGY OF LEARNING AND THE DALTON PLAN

From the standpoint of the child. Jennie was visiting her eighth grade teacher. "Oh, Miss Smith, high school's grand! It isn't a bit like this school! You can do anything you want to, you can leave the room without asking the teacher, you can talk just whenever you like, and they have a library with the nicest books where you can sit and read as long as anything!"

"Do anything you want? What do you mean? Don't you have to study?"

"Yes, we have contracts and they all have to be done in a month, but it's such fun to do it when you feel like it. I've got my English all finished for this month, but I'll have to hustle on that science. You see, I don't like it at all, and so let it go to the end, but next month I think it'll pay to do it first, and I won't have to worry. You know Esther? Well, she got 'unsatisfactory' on her last graph for word study because she used to take two lunch periods and then she didn't get her work done. She feels awful about it, so she says this month she isn't going to eat any lunch at all till she gets both contracts done."

"How are you getting along in algebra now? Remember you used to cry over some of the problems?"

"I know I'm dumb in alg'bra and so are some other girls, so we go often to that room, and fewer times to English, for I'm quick in English. It's awful good sense, I think, but my senior guide says she doesn't like this new plan, she has to work too hard. 'Course it's hard, but it's such fun!"

*A task to do.* In two months' time Jennie had formed some idea of the Dalton Plan. To be sure, it was childish, but she realized that she had a definite task to do, and that she could do it in her own time and in her own way. It was the freedom of action that appealed to her, as it does to all vigorous, energetic children. She threw herself far more enthusiastically into her studies because she could plan them in accordance with her own desires, provided her purpose was accomplished.

*Freedom in which to do it.* All students like some subjects better than others, and it is usually true that the "learning curve" is better under such conditions. It is always more pleasant to work on something that one likes. It is also more pleasant to choose one's task rather than to feel compelled to do it. Under the Dalton Plan, the temperament and the varying moods of the child operate to promote efficiency rather than to decrease it. If he "feels" like studying English on one particular day, that lesson will be more easily learned than at any other time. That does not mean that if he never feels like doing English, he is to be allowed to neglect it altogether. He knows from his view of the whole scope of his work the relation that the English has to the goal he has set himself. Every lesson must be learned, but the time for the learning he is free to choose for himself. That very choice makes the task more pleasant, and hence more readily learned.

This principle of time freedom gives all learners their optimal time for learning. This is of great importance in promoting the efficiency of learning. The good learner is not compelled to waste time in over-learning, or to acquire bad habits of "loafing," while waiting for the poorer ones who need longer time and more repetitions; nor are the

poor ones rushed ahead to another step before they have become proficient in the first one. More repetition than is absolutely necessary is wasteful from the point of view of time and deadly for attention and interest. The few students that are more alike can be brought together in natural groups in which they may concentrate for the length of time necessary for them for efficient recall; then they may go on with other work, while a slower group is taking a longer time. It is a physical fact that the "warming process" takes an appreciable amount of time, differing in different individuals. It is real conservation of energy, therefore, to be able to go on with the problem even though the bell has rung, and it is mentally satisfying to carry it to a point of completion, entirely regardless of the time element. Attention and interest are variable factors, even in the same individual. To be able to work at a definite task at a time when one's interest is the keenest is a great aid to learning. "Strike while the iron is hot" is just as applicable to the learning process as it is to other things in life.

All learners are influenced in their rate of learning by the quality of the material. The Dalton Plan takes this into consideration, giving the student the opportunity to spend the greatest amount of time on the subject in which he is slowest. He is free to return for short periods of drill, to take a longer time to ponder and to think, compensating by giving less time to the subjects in which his learning rate is quicker. He also has time for greater activity in the particular subject in which he is most interested. This can frequently act as an inducement to accomplish tasks in which his interest is not so keen.

Since learning is an active process, any laboratory plan

is a good stimulation because it calls forth so many different forms of activity. It also permits presentation of the material in all possible ways. The child who has good visual imagery must see the problem in verbal or concrete form, and loses out entirely when he must merely listen. On the other hand, the auditory-minded person and the one with vocal-motor imagery form a good discussion group and help each other. The "mumbler," so annoying to others under the classroom system, is free to go off to a corner and mutter to his heart's content. Since most people use visual imagery to a greater or less extent, the printed assignment is always better than an oral one.

The contract, or assignment, covers a definite unit of work in each subject. Its purpose is to let the learner see the problem as a whole while he is working on it step by step. The aim or goal is ever before him. The problem is coherently organized when presented in this form, and the material is "meaningful." It is given in short units which are more easily learned than long ones.

*Self-testing.* The check-up is a method to allow the child to find out whether his solutions are correct or not. The knowledge that he has made no progress, and that the work must be done over again if he wants to pass successfully the examination at the end, are the punishments of incorrect solutions. Going on to the next step is the reward for correct ones. The check-ups must be frequent in order to detect, and then inhibit, undesirable habits. This self-testing allows the child to measure his progress in relation to that of his group, and in relation to the kind of progress he himself is capable of making. Miss Parkhurst tells the story of the little girl who found that while she was ahead of the class she was "behind herself." By keeping records

of the amount of work accomplished from month to month, the child can get an idea of his own norm, and if he tries to hold himself up to that possible standard, if he is dissatisfied with any falling short of it, his learning has been twofold. That is, he has learned not only geometry and history and typewriting, but he has learned himself as well.

Under the old plan of classroom work, an absence of a day, a week, or a month had disastrous if not fatal consequences. With the Dalton Plan the child can slow up his activities when for any reason his physical condition is not up to par, and work at maximum speed and intensity when he feels particularly energetic. The child with a real physical handicap can be given minimum essentials, with no frills, while he is building up his health. During the term or the year in which the child is growing very rapidly the work can be lightened, for it has been demonstrated that learning is inversely proportional to growth.

*Attitude toward instruction.* One of the outstanding features of the Dalton Plan is that it allows and encourages individual differences in learning and in habit forming. The child is permitted to see that there are differences; he has the opportunity to experiment to see which methods of approach and stimulation and recall work out to his best advantage. He comes to know some of the laws of learning as applied to himself, and finally is able to adopt a more scientific attitude toward his own learning process. He learns how to learn.

The right attitude toward the task and freedom for the doing of it, is the goal idea of the Dalton Plan. The child approaches school with an attitude of curiosity, which is largely instinctive. This can be modified into an attitude of intellectual interest with skillful methods. Too often,

however, it is turned into an unwholesome attitude of fear or disgust by improper grading in the school, with slovenly methods of learning, with time-wasting devices. If there is worry, confusion, and mental strain there cannot be normal mental development. The work of Parker, Kilpatrick, Pavlov, and others, show the importance of initiating right attitudes and habits in regard to study, from which may be developed attitudes of permanent interest.

How are the attitudes of readiness to accept instruction set up under the Dalton Plan? The method is suggestion, which is defined by Tichener as "any stimulus, external or internal, accompanied or unaccompanied by consciousness, which touches off a determining tendency." Personality is made up of a group of native and acquired tendencies, which determine our responses, conditioned by the task set before us. The situation, or stimulus, which is necessary to gain a desired response, or to inhibit an undesired one, may arise from the teacher, from the other students, from the laboratory atmosphere, or from the learner himself. Many stimuli tend to arouse merely conventional responses. These represent the wisdom of the past and are vitally important. However, for the best and highest development of the personality, conventionality, which is only an economic device, should be limited to the unessentials in thought and behavior, allowing freedom for the expression of one's own individuality in the great essentials of life. "Expression," "response," are words of action, and they are applied to the pupil and not to the teacher. "The purposeful self-activity of the pupil" is the great phrase in education under the Dalton Plan. Training, rather than instruction, is emphasized.

**From the standpoint of the teacher.** Why not have a school of just pupils, then, and no teachers, since they seem unnecessary? As a matter of fact, in the Dalton Plan the teacher is of far more importance than she ever was. It takes a great deal more cleverness and wisdom to direct and control the activity of every child, and still keep "hands off," than it does to cram information into receptive little brain boxes. She needs not only a background in her own and related subjects, but also a knowledge of the "efficiency of management" in order to conserve her own energy, upon which there are endless demands. If she has a good working idea of the psychology of the child and the scientific aspect of the learning process she can better preserve her own balance and sense of proportion, and build up a technique that is highly proficient.

*Knowledge of technical psychology of learning necessary.* Thorndike's exposition of the learning process in relation to education is probably the most familiar to teachers. Learning, he says, may be defined as the ability to change one's reaction as the result of one's own personal experience. This is a broad, general definition, applicable to all kinds of learning, and to animal as well as human. The usual animal reactions come from a trial and error kind of behavior: the learning process consists of the stamping in of the successful reaction and the stamping out of the unsuccessful.

*Psychological basis of learning.* Thorndike explains this stamping-in process as the formation of a bond, or connection, between a situation and a response. Sometimes the response is instinctive; that is, certain neurones are "ready to act," in one particular way. At other times, the neurones, "ready to act," discharge their energy in a switch-

board fashion that is highly complex, into other neurones, causing multiple responses. The response that is most satisfying is the one that will most likely be called into use again and again. Learning may be possible without any other factors than a situation, an animal whose inner conditions it can change, the retention of certain of these conditions in the animal because they favor the life processes of the neurones concerned, and the abandonment of other conditions because they disturb the neurones. This is a simple selective association of response to situation. When the situations and responses include ideas as components, we have the same simple associative plan, but on an intellectual level. This formation of connections involving ideas accounts for "knowledge."

*Habits — simple learning.* Connection forming is another name for habit formation, or associative memory. It is a sensori-motor coördination. The study of habits takes up many chapters in the psychology books. One reads about conditioned reflexes, hierarchies of habits, plasticity of the nervous system, the advantages of generic rather than specific habits, and the like. These terms are not so alarming at second glance. A conditioned reflex is a response brought about by a stimulus or a situation other than the biologically adequate one, but which has been associated with it at some time. Thus we have association of stimuli as well as association of stimulus and response. It involves the functioning of the cerebral cortex, and real associations are formed. The classic example is Pavlov's dog. Every time food was given, stimulating the flow of saliva, a bell was rung. After a while the ringing of the bell without the food caused the saliva to flow. The associated stimulus called forth the same response as the natural

one. Moreover, the memory of either stimulus may arouse the same reflex. If a different stimulus is added, however, the whole reflex is inhibited. A still different kind of stimulation may inhibit the inhibition and the original conditioned reflex be re-established. Inhibition and response are both important in the development and training of this central nervous system.

Habits are systems of conditioned reflexes, including the memory reflexes. Many of them are built up unconsciously. Better work can be done in pleasant surroundings, appetite responds quickly to well-cooked food, one writes with more facility with one's own familiar pen, — commonplace facts, but examples of associated reflexes contributing to efficiency. Habits are formed by repetition and, as James says, "by launching oneself into a new habit with as strong a resolution as possible." Habits may be broken by substituting another antagonistic habit. There are some habits which should be acquired before others, elementary habits should be preparatory to higher and more complex ones, just as creeping is preparatory to walking. These earlier habits must be broken to make room for the later ones. This necessitates a plasticity of the organism, a capacity for growth and readjustment, if full development is to be realized.

Education, we say, is the formation of good habits. But this term is always a relative one. What is good for one person may not be good for another; habits that are good for one time and age may be useless in the adult. Habits involving essential details can hamper one's behavior in bigger things. Broad general habits are more useful than specific ones. A sense of proportion is a good generic habit to add to one's stock in trade. A system of education can-

not insist upon the same habits for all students ; it must be plastic, capable of growing and expanding. It must encourage the same plasticity and vitality in the growing nervous systems of the learners.

*Discrimination — more complex learning.* In addition to the ability to form associations by conditioned reflexes and memory reflexes, there is another activity of the higher nervous system involved in learning. This is the power to analyze or break up the stimuli arriving in the cortex, and, by the nervous mechanism of association, use any part or element of the analysis to touch off any desired reflex. In the language of Thorndike, each element in the situation, as well as the situation as a whole, can operate in the formation of "bonds." The more intellectual a person is, the more subtle are the elements which may be active. This is learning by analysis, or discrimination. Our power of adaptation depends upon the number and complexities of these associations.

*Laws of learning.* It is impossible in one brief chapter to do more than indicate the meaning of the learning process. The factors which influence this process are the so-called "laws of learning." They include time, repetition, quality and quantity of material, manner of presentation, the imaginal type of the learner and his attention, interest, health, and attitude. Teaching is arranging situations so that the laws of learning may have a chance to operate. The Dalton Plan as a method of education allows the skill and ingenuity of the teacher to act for the benefit of the learner in a great variety of ways. It allows good craftsmanship of teacherhood.

## CHAPTER XII

### THE LIBRARY AND THE DALTON PLAN

**Effect of the Dalton Plan.** *Atmosphere of the library.* The Dalton Plan, with the freedom it allows the pupils, has accomplished many good things for which we had been struggling under the old system of restraint. It has brought about an ever-increasing use of the school library. From the first day of the operation of the Dalton Plan, the librarian was delighted to observe in the room the real library atmosphere which she had long been endeavoring to create. Each period in the day the room was filled with pupils eagerly seeking knowledge. Groups were working earnestly together with no confusion. The card catalogue was suddenly in demand whereas heretofore it had stood neglected. Students were looking up information in the *Readers' Guide to Periodical Literature* and in the reference books. What delighted the librarian most of all was the intelligent manner in which the pupils used the card catalogue, the *Readers' Guide*, and the reference books.

*Training in use of the library.* For the first three weeks of the Dalton Plan, the pupils had been kept in classes. Each teacher for the first lesson taught the use of the book, the use of the table of contents and of the index. The pupils were also taught how to study and how to take notes. Some of the teachers brought their classes to the library and gave lessons on the use of the card catalogue and the *Readers' Guide*.

There has never been a place on the roster for formal

library lessons. In former days the librarian had the privilege of calling out of study hall groups of girls for instruction in the use of the books and the library. This was not satisfactory, for there was no roll of the pupils and no check-up could be made. Now the library instruction is given as part of the English assignment. Lessons are given on the classification of the library, the use of the card catalogue, the reference books, and the *Readers' Guide*. Each pupil is assigned a problem, requiring her to locate on the shelves books on certain topics; subjects are assigned requiring the pupils to use the reference books and the *Readers' Guide*. The pupils are required to find the articles in the magazines themselves. Credit is given for this work and the English graphs are not signed until the work is done satisfactorily. Next term it is planned to give library instruction in the commercial department as well. Lessons on reference books for business offices will be given to the office practice classes. These lessons are given in the library, by the librarian, and the problems are worked out under her supervision.

*Discipline.* The Dalton Plan has helped to solve the discipline problem. Under the old rule the pupils were excused from study hall to come to the library. Each pupil was obliged to fill out a library pass. These passes were sent to study hall to check attendance. The work of distributing the passes, filling them out, and collecting them again always caused a little confusion and it was some time before the pupils settled down to work. Now when the students are free to come and go as they please, a girl comes into the room, gets the book she wants, and quietly settles down to work in real earnest without delay. When she has found the information she is seeking, she has the privilege

of going to another room to go on with other work and no time is lost.

*Number of readers.* The record of the number of readers is kept each period by a girl who sits at the door and checks up each person entering the room. At first the number of books for home use increased to a greater degree than the number of readers. Since the beginning of time freedom the number of readers has been greater than the number of books borrowed. In some cases the figures for the latter have fallen below the figures of last year. This decrease in the home use of books is due to the fact that the pupils are now learning to utilize their school periods to advantage. They are now able to do the greater part of their studying in school hours and they have less need of carrying books home. Many of the teachers prefer to take to the classrooms the books needed for the month's assignments that the books may be at hand for conferences and for consultation in helping the individual pupils. These books are sometimes lent to the pupils overnight by the teachers.

*Circulation.* Library books needed for assignments are lent for overnight only. They may not be taken from the library until after the close of school and must be returned before school the next morning. The books are then in the library for the use of the students during school hours. Some books work overtime. Those in great demand on an assignment the librarian keeps on her desk. Each pupil using the book is required to sign her name and return the book to the desk when she has finished with it. The librarian then gives it to the next pupil who wishes it and in this way the book has no idle moments.

The time freedom has done away with the tremendous after school rushes. Often in former days, in the first half

hour after the close of the early shift of school there would be two hundred girls in the room, which seats only eighty comfortably. Pupils who had no free periods during the

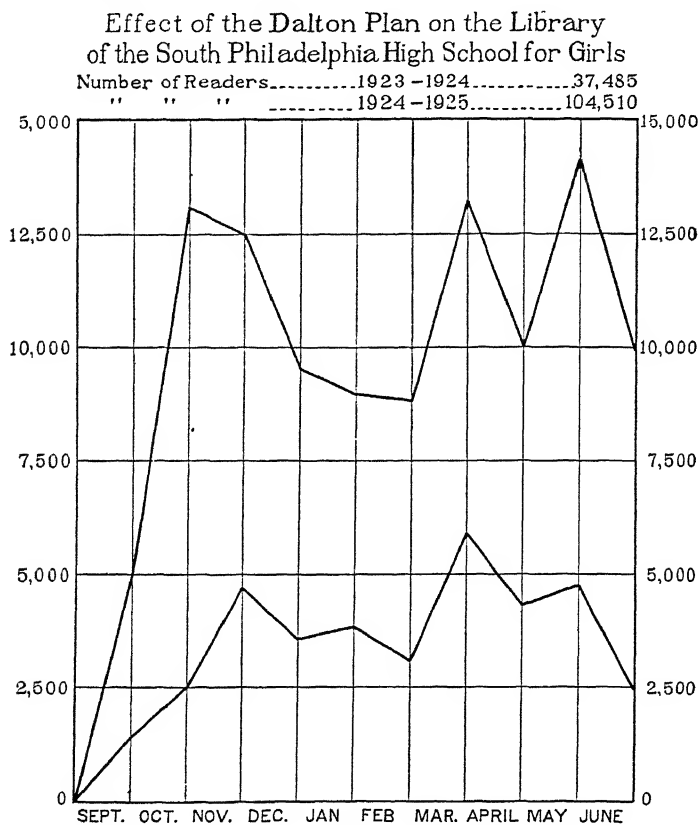


FIG. 5

day rushed in to do their work and the others came in to take out overnight books. The room resembled anything but a library and there was little opportunity for quiet

study. Now there are no greater numbers in the room at the close of school than at any other time in the day. The room is comfortably filled each period of the day and the pupils are learning to budget their time. On one occasion when the library was closed for two hours for a senior reception and re-opened after the reception the pupils arranged their time so well that the number of readers that day was no less than on any other day.

The number of readers averages from five to eight hundred a day. One banner day when the pupils were not required to observe any fixed periods the number of readers reached one thousand and six. The increase in the number of readers is really greater than the figures in the graph show. Last year the library was used as an overflow from study hall and many pupils used the library for textbook study. This year no textbook study is allowed in the library. There are always non-conference rooms and study hall available for that type of work. The library is used only for legitimate library purposes. The pupils are allowed to come to the library, only to read or to consult the books and magazines. The number of readers is steadily increasing. The students are learning to use the books more and more to work out their assignments. The pupils now, as well as the teachers, realize the important part a library plays in education. Our students are going out of school well equipped to make good use of books and libraries.



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*The Essay Task on the Dalton Plan* (in Chinese).  
*An Outlook of the Dalton Plan* (in Chinese).  
*The Questions and Answers of the Dalton Plan* (in Chinese).
- LING, P. *A Study of the Education on the Dalton Plan* (in Chinese).
- PARKHURST, HELEN, *Education on the Dalton Plan* translated into Chinese by T. C. Ts'ang. This book has also been translated into the following languages: French, German, Hebrew, Hindustani, Italian, Japanese, Norwegian, Polish, Russian, Spanish, and Swedish.
- "Dalton Plan, The" (in Chinese). *Chinese Educational Review*.
- "Dalton Plan, The" (in Chinese). *Chung Hwa Educational Review*.

NOTE: Altogether, fourteen books have been published in Chinese, with literally hundreds of articles.

## BOOKS IN JAPANESE

In addition to translations of Miss Parkhurst's *Education on the Dalton Plan* and Evelyn Dewey's *The Dalton Laboratory Plan*, ten additional books have been published in Japanese, together with hundreds of articles.

## BOOKS IN RUSSIAN

An abstract of Miss Parkhurst's *Education on the Dalton Plan* has been published in book form, together with hundreds of articles.



## APPENDIX

### ENGLISH

- I. First year
  - A. Literature
  - B. Technical English
- II. Second year
  - A. Literature
  - B. Composition
- III. Third year
  - A. Technical English
  - B. Library work
  - C. Literature
- IV. Fourth year
  - A. Literature

### 9 A LITERATURE

Note that this assignment provides for group planning. There is an attempt to teach the pupils to compare and judge as they read. We call it "reading between the lines."

#### ARABIAN NIGHTS' ENTERTAINMENT

I. You may already know the story of the *Enchanted Horse*. Read it again to discover how the lovely princess was finally rescued. In a paper of not more than fifty words, tell why this story might make a thrilling motion picture. (Two periods.)

II. As you read the story of Aladdin, note for what purposes Aladdin used the power of the lamp. Might he have used this power in a better way? Prepare to tell us in conference what commands you would give the genie if you owned the lamp. (One period: one conference.)

III. After you have finished reading *Ali Baba and the Forty Thieves* and have made a list of the important characters, divide the story into three or four scenes, which could be given in class. Outline under each scene the necessary details such as characters, setting, action. Discuss your plan with two or three other girls. Make up a group plan. Bring the completed group plan to me. (Three periods.)

IV. Read all the *Voyages of Sinbad the Sailor*. As you finish each voyage, note down the most unusual happening of the voyage. Prepare to tell of an *eighth* voyage in conference. Try to make the events of this eighth voyage just as unusual as those of the seven you read. (Two periods: one conference.)

V. In a paper of not more than fifty words, tell how these stories differed from the Greek stories.

A. Compare the heroes of the Arabian tales with those of the Greek stories.

B. What differences did you note in the adventures of the heroes in each group of stories?

C. What were the chief differences in the manners and customs of each group? (One period.)

Note in this assignment the attempt to connect the story with others read by the class.

#### SIEGFRIED

I. Most of the stories you have read before have had the warm lands around the eastern end of the Mediterranean Sea for their settings. Now you are about to read some stories telling of the deeds of a mighty hero who lived in the cold North. On pages vi, vii, viii, and ix, you will find that the author has compared the Greek stories with the Norse tales. Read those pages so that you may better understand what is to follow.

II. In the other stories you found many heroes mentioned; in this group you will find only one chief character. As you read of his deeds compare him with the other heroes you know.

A. Was he brave, courageous, persevering, and clever as they?

B. Were his dangers as great?

C. Did he receive supernatural aid?

D. Was he successful in what he undertook to do?

Read with these general questions in mind, and prepare to answer them fully in your last conferences.

III. In "Mimer the Master" and "Greyfell" you read of Siegfried's training for his future work. He had to remake the sword many times before it pleased Mimer. What effect did this tedious work have on Siegfried's character? What effect on his body? How did Siegfried know from the beginning that Greyfell could carry him through his many dangerous adventures?

IV. In "The Curse of Gold" and "Fafnir the Dragon" you read of the first wrong Siegfried righted. Does the curse of gold still exist? How may one keep free from the curse?

V. As you read through you will note a number of stories.

A. "The Feast in Aegir's Hall"

B. "Brunhild"

C. "Idun and Her Apples"

D. "Balder"

E. "Alberich's Story"

VI. "Doom of the Mischief Maker." Prepare to tell one of these stories in conference. (Four days' work.) You have heard the story of Brunhild's awakening under a different title. Try to recall what it was. On page vii you have read of another version of the story. Does this version remind you of any Greek story you know? What qualities of character did Siegfried have to possess in order to accomplish the deed of awakening Brunhild?

VII. "In Nibelungen Land" you read of the curse of gold once more. What hope, however, did Siegfried have for the future? Learn the paragraph in which he expressed this hope. Notice how beautifully he expresses his thoughts here. Where have you read of the cap of invisibility before? How did Siegfried get the cap for himself? What else did he acquire at the same time that was of much value? Siegfried returned home for a short time, but like a true hero, he soon became restless and wanted more adventure.

VIII. In the "Journey to Burgundyland" you are introduced to some new characters. What kind of person was Hagen? What qualities of character did Kriemhild possess? How did the prophecies in Kriemhild's dream come to pass? How did Siegfried aid Gunther in outwitting Brunhild? What power enabled Siegfried to go so rapidly to Nibelungen Land to bring aid to Gunther? Be pre-

pared to tell in conference of other supernatural aid any heroes received.

After Gunther and Brunhild had returned to Burgundy, Siegfried carried the fair Kriemhild to Nibelungen Land and gave her the Hoard of Andvari. All had been peaceful and joyous.

On the visit to Burgundy, however, "mischief began to brew." The seed of the mischief had been planted at what time? Why should Brunhild be the one to begin the trouble? What differences do you see in the characters of Brunhild and Kriemhild? What scheme did Hagen propose to Gunther? To Kriemhild? How did the mighty hero meet his death? What finally became of the Hoard of Andvari?

IX. The Norns spin the thread of Fate. Prepare to tell in conference what events they placed in Siegfried's life.

## 9B LITERATURE

This assignment has just about enough detailed suggestions for use in 9 *B*.

### RAMONA

Read through your contract before reading the book so that you will know what to look for as you read. In order to finish the term's work comfortably, I suggest that you finish this book in about three weeks.

I. First conference. There will be a conference at which we shall discuss the events up to the end of ch. X. Have a list of all the important people you meet up to that point and be prepared to tell what part each plays in the plot.

II. Second conference. At this conference we shall discuss the book as a whole. Be prepared with two interesting questions for discussion similar to these:

Felipe and Alessandro as lovers  
The Senora, — whether or not she is a villain  
The intelligence of Baba, Capitan, Benito  
Life on a Spanish ranch  
The life of the Indians  
Did the story end as you would have it end?

III. Theme. Write a theme of three or four sentences about a person you sincerely love or sincerely hate in this book. Make your writing "ring true." Be very sure there are no errors in spelling, punctuation, or sentence structure. Watch your spelling of proper names.

Some of the pupils caught very charmingly the phrasing and rhythm of the Palmer translation of *The Odyssey*.

#### THE ODYSSEY

You will enjoy the thrilling incidents in this story if you have the plot in mind first. You will find the introduction very helpful as the story is told there in bare outline. As you read, keep a list of expressions that occur again and again, such as: "What word has passed the barrier of your lips?" *Again keep a list of customs, epithets, and beautiful passages.* Have them with you every time we have conference. There are possibilities of dramatic work in *The Odyssey*, and you may present scenes during conference period. Consult me first. Of course, most of the reading will be done outside of class to give plenty of time for discussion and reading aloud.

I. Begin with ch. V, which introduces you to Ulysses ten years after the fall of Troy. Another name for Ulysses is Odysseus, hence the name of the story. We shall first meet him in Phaeacia where he tells the story of his wanderings of the past ten years to King Alcinoüs.

II. The wanderings and adventures of Odysseus, chs. IV to XII. Watch the map and trace his adventures with:

Aeolus, Cyclops, The Laestrygonians, Circe, Land of the Dead, Scylla and Charybdis, Lotus Eaters, Sirens, Calypso, etc.

III. How Odysseus recovered his kingdom. Keep these points clear:

His stay with Eumeus	The trial of the bow
Meeting with Telemachus	The slaughter of the suitors
The plans laid	The happy ending
Penelope and Euryclea	

Conference. We shall discuss the story, manners, and customs, interesting or beautiful passages, and any interesting questions you

may suggest. This would be a good time to present several scenes to the class in dramatic form. (You should plan to finish in three weeks.)

Test. You will be asked to identify a number of characters from *The Illiad* and *The Odyssey*.

## 9 A TECHNICAL ENGLISH

The detail of this assignment is necessary for the 9 A pupils. The types of sentences referred to were taught the previous month.

I. You should know by this time at least two different kinds of sentences. (See Lewis & Lynch, *Grammar to Use*, pages 7 to 11.) Now see what pages 11 to 15 in the same book have to say about a third type of sentence.

II. Test yourself by doing the exercises on pages 15 and the top of 16. When you have finished the exercises, consult other girls who have also finished. One girl in a group may have a key from my desk to guide correction.

III. Come to me for a test when you are sure you are prepared to recognize and construct simple, compound, and complex sentences. (Three days' work.)

IV. Have you ever asked yourself why we should bother about punctuating what we write? It often seems like a nuisance to have to stop for commas and periods. (See page 165 in Lewis & Hosis, *Practical English for High Schools*.) Should you like to read a whole book printed in that fashion? Read also pages 177 and 178 in Ward, *Sentence and Theme*.

V. Examine the list of punctuation marks in Lewis & Hosis, *Practical English for High Schools*, on page 167. Your work this term will be to make familiar friends of these helps in reading.

VI. In order to learn to use punctuation marks correctly, it is necessary to keep in mind one thing first. Punctuation is a signal to indicate clearly the meaning in written work.

Punctuate the following sentences in as many ways as possible. Be prepared to explain how the changes in punctuation change the meaning.

Elizabeth is the new girl in town  
There is no work for me to do  
John is the boy waiting on the store  
Mary was the girl chosen for the play

Within the sentence, place other marks to show groups of words that belong together; to keep the reader's eye from traveling too far before stopping to take in the meaning; to make certain groups of words emphatic.

These three intentions will govern the use of every punctuation mark one can possibly use in a sentence. If you will try to grasp these ideas firmly and practice them rigidly, you will soon find your ability to punctuate will become practically 100% perfect.

VII. The comma is the mark most often used in writing, so we shall begin to practice using commas in order to fulfill those three requirements. We shall practice obeying the first principle first:

Place a comma where you wish to show your reader groups of words which belong together:

"A funny old man told this to me  
I fell in a snowdrift in June said he  
I went to a ball game out in the sea  
I saw a jelly-fish float up in a tree  
I found some gum in a cup of tea  
I stirred my milk with a brass key  
I opened my door on my bended knee  
I beg your pardon for this said he  
But 't is true when told as it ought to be  
'T is a puzzle in punctuation you see."

## 9 B TECHNICAL ENGLISH

One teacher says of this assignment: "The variety of choice and the opportunity to work when and where one pleases make this a very workable assignment. It is so arranged also that some of the topics may be used as extra drill materials for pupils who do poorly in their first attempts."

From now until the end of the term, you will be expected to do one unit of technical work a week. The units are divided as follows:

three letters      two themes      one oral (two if possible)

You will now put your theories into practice. The first part of the term was spent in studying spelling, punctuation, and sentence building with an eye to clearness and emphasis. Don't write until you feel you can interest your reader.

### I. Letters

A. Friendly. Be sure you know the correct form of a friendly letter given in your textbooks before you attempt to write on one of the following topics:

1. A short letter to your parents who are away from home.
2. An invitation to Dr. Wilson, or a teacher, to attend a class party after school.
3. A letter telling some unusual news.
4. A note of apology for not carrying out a friend's request.

B. Business. Find out from your textbooks how to order by mail. Be sure you have the form exactly right and be careful to include all necessary information. Choose one of the following:

1. Subscribe to the *Saturday Evening Post* for one year. (Find out the price and address of the company.)
2. Write to a Philadelphia Department Store for a catalogue of washing machines.
3. Order two pairs of black silk stockings for yourself. (How are you going to pay for them?)
4. Bring in an advertisement from a magazine that you would like to answer. If your teacher approves you may answer that.

II. Themes. Choose topics that are most interesting and most real to you:

Something my grandmother told me  
My castle in the air  
The prettiest thing I've seen this spring  
Where and how to spend a Saturday

An unfamiliar custom  
A family heirloom  
A May fair suggestion  
The foreign countries I  
want to see first

If there is any topic you would particularly enjoy writing about, submit it to your teacher for approval.

III. Oral. Aim for interest and the best expressions you have ever used in oral work. Have you improved in your oral work since you entered this school? Choose one of the following topics:

Interesting superstitions of foreign lands  
An interesting short folk tale from abroad  
A short animal story  
Answering an advertisement  
A surprise party that failed  
A myth from Greece or Rome

## 10A LITERATURE

### THE VIRGINIAN

Notice who wrote this book; you will be interested if you find out a little about the author: where he lived and what he has written.

The story is very easy to read and enjoy. The questions are to help you select the important points.

Where is the story laid?

What were the most interesting incidents?

What were the most exciting?

Could you tell the story of Emily?

Why was Molly Stark Wood unusual?

What events happened on her trip west?

What were the chief happenings of interest at the barbecue?

How did the Virginian manage to bring all the cowboys back to Sunk Creek?

Was the Virginian justified in his treatment of Dr. MacBride?

Why did Shorty have to sell Pedro?

What kind of man was Balaam?

Why was Molly Wood leaving Sunk Creek?

What kept her from going?

What effect did the news in the letter have in Bennington?

How did the Virginian finally settle his score with Trampas?

How was the Virginian received in Bennington? — in Dunbarton?

At the end of the book you will be asked to write a letter to a friend recommending it to her.

## VISION OF SIR LAUNFAL

I. Read the poem carefully. Try reading at least part of it aloud to a classmate. Do you know the meaning of the words? Can you bring out the meaning of the lines? Can you make your audience enjoy the poem as you read?

II. Conference. We will discuss in class the story of the poem. Be prepared with a list of the things you have not understood.

III. Go over the descriptions of Spring and Winter. Make a list of telling, descriptive words. Could you use these in your own paragraphs of description? Practice giving these pictures in your own words, yet keeping some of Lowell's expressions.

IV. Conference. This will be a contest in memorization. Each girl must have memorized at least fifty lines (not necessarily in one single quotation). We shall try to decide which girl has made the best selection of lines, and which has been most successful in giving her lines before the class.

## MIDSUMMER NIGHT'S DREAM (Four lessons)

I. Your first lesson will be a conference with your teacher. Be ready to contribute all you can. At this lesson we will also go over the *dramatis personae*.

II. Read the play for the story.

III. Come to class prepared for a discussion of the characters and the plot.

IV. You will want to read much of the play aloud. Select what seems to you the best scenes and try reading aloud some of the parts.

## 10B LITERATURE

Although this assignment is for the young pupils, the type of play makes it unnecessary to give detailed directions for reading.

## AS YOU LIKE IT

You have read about Locksley, Robin Hood, and other adventurers in "Merrie England"; you have learned about growth of our language; you have enjoyed the quaint, old English of Chaucer, and

have been interested in the motley band of pilgrims that wended their way to Canterbury. Now comes the best of all in Shakespeare's *As You Like It*.

### *First Week*

I. Read the play through and come to conference prepared to give the story; to name the chief characters; to read any striking passages that impressed you; to ask about any parts which puzzled you. Assignments will be made, as your teacher and you decide, for more intensive reading and for individual reports. Certain parts will be selected for reading and for acting in class.

II. This time will be required for developments from lesson I.

### *Second Week*

I, II, III, IV. Time for the continuation of lessons I and II. Also, refresh your minds on Shakespeare and his time; study at least ten lines which appealed to you in the play.

### LORNA DOONE

I. Conference on *Lorna Doone*. No dawdling in the reading! A new book carries one into a new adventure. If you have any difficulty with the odd dialect, consult the glossary.

II. You cannot remember all the characters in this book, but become familiar with the chief ones. Learn to know every member of the interesting Ridd family, the wild and lawless Doone Band, Tom Faggus with his "strawberry mare," Jeremy Stickle, Uncle Huckaback, Ruth Huckaback and queer old witch, Mother Meldrum, etc. Find out if there are any historical characters mentioned; try to picture the country where the events took place.

III. Compare and contrast the story of *Ramona* with *Lorna Doone*.

IV. You will probably understand the book better if you read the Preface, and it will throw light on some of the following topics and questions:

- A. Trace the downfall of the Doone family.
- B. Has Blackmore power in description of persons, places, events?
- C. Are there any tense situations in the book?

D. Are there any odd or unusual ones?

E. Does the book arouse your admiration for loyalty, perseverance, courage?

F. Is *Lorna Doone* an historical novel?

#### CRANFORD

I. Conference

II. The title of a book is often very significant; find out about this one. Did you ever read a book like this one before? Does it appeal to you? If so, try to find out what it is that holds your interests. Are the people real to you? Impersonate any two of them, either through dress, mannerisms, or by words.

III. Recall a pathetic incident in the book. Is there any exciting one; any one that arouses your ire; any one incident that had a surprising outcome?

IV. Either orally, or in writing, be prepared to:

A. Finish the story of *Cranford* to suit yourself.

B. Tell the adventures of Peter in India.

C. Write a page in the diary of any one of the following: Miss Matty, Peter, Miss Deborah, Mr. Jenkyns, Mr. Holbrooke.

### 10A TECHNICAL WORK

Note the informal tone used throughout.

#### LETTERS (Three lessons)

I. In Lewis and Hosis, *Practical English for High Schools*, chapter X tells you many interesting things about "Visiting by Mail." Read this chapter carefully.

II. Imagine you have stayed for a few days with one of your friends. On your return you should write a letter to her mother thanking her for her hospitality.

III. Write another letter to a friend telling of your visit.

#### DESCRIPTIVE PARAGRAPHS

In your paragraph work you have studied various good methods of writing and have tried some of these in your own written work. The remainder of our composition work will be writing a good para-

graph. Your work should be nearing perfection: is it? If not, find out why.

In Baldwin, *Writing and Speaking*, Part I, chapter III, deals with descriptive writing. You will find the entire chapter full of interesting material. It will give you many ideas for improving your work. (Approximately four periods.)

I. Read pages 108 to 112 slowly and very carefully. On page 111, study the method used in the selection "The End of the Wharf"; do the same for any two of the other topics.

II. Study the rest of the chapter. Make an outline of the main points treated in the chapter. Be ready to discuss these either individually with your teacher or in a class conference.

III and IV. Write a paragraph on one topic from each list:

Our baby	A parade
My mother	A crowd
An eccentric character	A busy room (the people, not the room)
A classmate	
A classroom	

These paragraphs are a test of how much you have learned about paragraph-writing. Don't hurry through them; think first, choosing your facts thoughtfully; then write, striving for absolute perfection.

## 11 A TECHNICAL ENGLISH AND LIBRARY WORK

### OUTLINING AND COMPOSITION (*Continued*) (Four days)

I. A. Refer to outlines 2 c of February assignment. Plan a talk from your outline. Is your talk interesting? Is it logical? Several will be given in class, but decide these questions about your own talk.

B. Read Lewis and Holic, *Practical English for High Schools*, p. 43. Review the paragraph including topic sentence, clincher sentence, and method of development. Know what the essentials of a good paragraph are. Ward, *Sentence and Theme*, may help too. See index for right chapter.

C. Read pages 54 and 54 in Lewis and Holic, *Practical English for High Schools*. In a longer composition, what else besides good individual paragraphs is necessary? Name three methods of securing this desired object. Bring to class a good example of a smooth transition from a first to a second paragraph. What method was

used for securing smoothness? Choose the example from one of your textbooks.

D. Write two well-connected paragraphs on any one of the following: Lewis and Hosis, p. 48, ex. *c, e, f*; p. 49, ex. *a, b, d*.

For those who want extra practice in technique: After the first series of paragraphs under 4 is checked, ask your teacher whether she advises you to try others in Lewis and Hosis or Ward.

II. Reference work: eight periods: four preparation, three library, one summary.

A. Prepare for the first library period (second week in March; exact date will be announced) by reading Baldwin, *Writing and Speaking*, Part II, pp. 222-227. These pages will throw light on how to gather material on more difficult subjects than those you have already outlined. Which is the better method of using a library? Why?

B. Read "Collecting Facts," Baldwin, II, pp. 227-230. Remember three good rules.

C. First fixed library conference. Go to the library at appointed period prepared to take notes on the following: arrangement of libraries, card catalogue reference books and indexes, encyclopedias and dictionaries, readers' guides.

D. In preparation for second library period during third week in March, write up your notes in ink in your library notebooks (preferably loose-leaf). In addition to this, write in ink the answers to the following questions:

1. Find an article in the *Encyclopedia Britannica* on the literature of the Age of Anne.

2. Give the names and call numbers of books in our library on the eighteenth century.

3. Find an article in the *New International Encyclopedia* on the modes of traveling in the eighteenth century.

4. Find the article in the *New International Encyclopedia* on the English drama and theater.

5. Find the article in the *New International Encyclopedia* on Queen Anne. Copy the names of the books referred to in the article.

6. What reference book have we in the library on curious customs? What information can you find in this book on May Day customs?

7. Look in Chambers' *Cyclopedia of English Literature* and find a sketch of eighteenth century literature. What points does it cover?

8. How do you use the index in Traill's *Social England*?

9. Look up in the *Readers' Guide to Periodical Literature* taverns of old England. Give names and dates of the magazines with paging of article.

E. Second library period: (third week in March). Notes discussed. At end of period notebooks may be handed in for marking.

F. Preparation for third library period by making a bibliography as per instructions for one of the following eighteenth century topics: eighteenth century newspapers; eighteenth century amusements; eighteenth century travel.

G. Third library period.

H. Class conference: questions and answers. What I got from library lessons; what I do not yet understand.

#### 11A RESEARCH WORK FOR A LONG EXPOSITORY PAPER

A special effort is made in this work to train the pupils in habits of literary honesty. Bibliographies are insisted upon, and legitimate use of quoted matter taught. The assignment for library instruction, p. 145, is direct preparation for this work.

Introduction: Your work for the next seven weeks will be *Discovering Early Eighteenth Century England* from books written at that time, and also from books written by modern critics about the age of Queen Anne. The assignments for the first four weeks will be concerned mainly with reading. The last three weeks will be devoted to planning and writing a paper.

The bibliography will be useful during both months. You are advised to read at least a book a week in April so that ideas for the eighteenth century paper may "come crowding" in May.

*Keep your library notebook or part of another notebook for eighteenth century notes.*

The following is a list of topics from which you may choose the

subject of the paper you will write in May. The actual details concerning the writing will be found in the May assignments. This is a "look ahead." As you are reading in April, turn to this list about once a week and check the titles that appeal to you.

Coffee Houses	Amusements of City Folk
Newspapers	Country Life
Dress of People and Fashion	Dr. Johnson and His Friends
Queen Anne Architecture	Means of Travel

### A Spectator Paper on School-Girl Habits

#### Bibliography:

I. Books for home reading and discussion in general conferences:

A. *Vicar of Wakefield*

B. *Sir Roger De Coverley* (pages 13 to 24; 29 to 36; 47 to 56; 73 to 80; 112 to 116; 120 to 130; 134 to 139)

C. *Rape of the Lock*

D. *She Stoops to Conquer*

E. One of the following:

1. Macaulay's *Life of Johnson*

2. Irving's *Life of Goldsmith*

3. Sheridan's *Rivals* and *School for Scandal*

NOTE: Academic college girls choose 1 and 2.

II. English literatures: on reserve in English classrooms; Halleck, Haney, Pancoast, etc. Long has a particularly good account of the period in chapter 9.

III. Reference books: on reserve in school library and in other libraries. For complete list see bulletin boards in English classrooms and library.

Ashton — *Social Life in Reign of Queen Anne*

Trail — *Social England* (Volume 5)

Lecky — *England in the Eighteenth Century* (Volume 2)

Dobson — *Eighteenth Century Vignettes*

Newton, A. Edward — *Magnificent Farce* ("Old Lady London," and others), *Amenities of Book-Collecting* ("Light Blue Stocking," etc.)

Lucas — *Wanderer in London*

## 11 B LITERATURE

## SOME NOVELS OF THE NINETEENTH CENTURY

During the next eight weeks you will have time to read the two novels *The Mill on the Floss* and *The Cloister and the Hearth*. If you read quickly, and wish to do more than the minimum assignment, choose one of the following. Discuss your extra reading with another girl, if possible, and arrange with your teacher for an extra conference when you are ready.

Stevenson's *Master of Ballantrae*

Scott's *Kenilworth*, *The Talisman*

Austen's *Sense and Sensibility*

Here are suggested topics to keep in mind as you are reading *The Mill on the Floss* and *The Cloister and the Hearth*. You and your teacher will decide whether you will meet in conference to discuss the whole of the book when all have finished, or in conferences at intervals as you read.

I. *The Mill on the Floss*: What is the significance of each of the sub-titles?

If you had been a member of the Tulliver family, how would you have felt about its various members?

Try to put yourself in Maggie's and Tom's place.

Would you have solved their problems as they did?

In the back of the book is a list of topics and questions that may illuminate your reading.

II. *The Cloister and the Hearth*: This novel tells the story of a large family. Make their acquaintance and form your opinions about them. When you talk them over with one another, be able to refer to incidents in the story which made you feel as you do about them.

There are many exciting incidents in the story, vividly told. Select two or three of them and notice carefully what means the author uses to gain his effects, to keep up his suspense, to work on your emotions.

*The Cloister and the Hearth* is one of the greatest historical novels ever written. What interesting things do you learn about fifteenth century life from it? Does the time of the story have any effect on the events? How would you like to have lived at that time? If you already know from your study of history, or if you can find out

any other information about the time of this story you might prepare to tell it to the other girls when we all have finished reading.

You will find many questions and topics, as well as some helpful notes in the back of the book. You ought to be able to discuss any of them when you have finished reading.

If any of you wish to dramatize any parts of these books, make your plans and consult your teacher.

## 11 B TECHNICAL ENGLISH (ARGUMENTATION)

No one textbook gives just what was wanted for the work in argumentation. Hence this assignment includes discussion of the principles and practice.

Composition: Our work for this term will be argumentation. If you do not know what the term means, how argumentation differs from exposition, you can find out by reading in any of the textbooks available in the classroom. Investigate these textbooks to find out what material on the subject is available.

I. After you have made this general survey, read carefully in Scott and Denney, pp. 216-217 (top). From the assignments on pp. 217-218, select any two that interest you and discuss them with some of your classmates. Consult your teacher about any difficulties. (One day.)

II. Sometimes all that is necessary for agreement is explanation and understanding, but more often reasons or arguments must be added if we wish to make our opponent think as we think or do as we wish. The following references will tell you about good and bad reasoning.

Read one or the other or both:

Lewis and Hosic — pp. 245-245

Scott and Denney — pp. 218-220

What two things must be true of every argument that you use to prove your point?

The following exercises will give you a chance to try your wits and to see whether you can recognize bad reasoning:

Hitchcock — p. 76      Hitchcock — Revised — p. 52

Scott and Denney — pp. 220-221 (One day.)

III. When a salesman wishes you to buy his merchandise, he must present arguments or reasons to persuade you. Every one in the class will pretend that she is trying to sell something. Arrange yourselves in groups of four or five and in turn try to sell to one or another anything you please — electrical appliances, silk stockings, soap, books. The girls who at the moment are not selling will act as housewives, not over-anxious to buy. Be sure that all your reasons are true and to the point. (One day.)

IV. Develop into a paragraph any one of the following topic sentences. This work is to be done individually. Write the paragraph in acceptable school form and give it to your teacher for approval. Plan to finish your work at least by the end of the period. Be sure that your reasoning is logical.

The great amount of work involved makes it advisable that the May Fair be discontinued.

If you wish your team to win, come out and cheer it.

The good school citizen will join the Students' Association.

High school girls should be given no home work. (One day.)

V. Before you go any further, give yourself a brief review. Can you answer the following questions?

What is a preposition? How should it be expressed?

What do we mean by "definition of terms"? When should this be done?

Are you learning to recognize good and bad reasoning? Perhaps you need to do more of the exercises suggested previously.

Look up the meaning of the following terms: affirmative, negative, questions at issue.

What are the three steps in every argument? (One day.)

VI. If a salesman said to you, "The man who wishes to own an inexpensive car should buy the Ford because it is better made than any others of about the same price," you would probably say, "Prove it!" How would he do it? Look up the meaning of the word "proof" in two or three of the textbooks. In addition think over the following proposition: The South Philadelphia High School for Girls should adopt the school uniform of jumper and blouse. Be ready to suggest two or three good reasons in support of this proposition and to prove one of them. Come to conference with whatever notes you have made. (Two days.)

Conference.

VII. You have discovered that definite facts and figures are often more convincing than general assertions. Read Lewis and Hosis, pp. 259 to 263. Select any one of the following topic sentences and prove by the use of figures, either real or imaginary. In presenting your figures, should you mention the source from which you got them?

The late room should be abolished because it is not an effective means of stopping lateness.

We should use electricity instead of gas for lighting because it is cheaper.

If I am in town shopping in the morning and have not finished, it is cheaper for me to buy my luncheon than it is to go home and get it and return in the afternoon to finish.

Girls should wear wash dresses to school in the winter instead of woolen dresses because they are cheaper. (Two days.)

VIII. All statements cannot be proved by the use of figures. Matters of opinion must be supported by other kinds of proof.

Consider the following proposition and reasons supporting it: Fireplaces as a means of heating are preferable to furnaces because (1) they are cheaper and (2) they are more attractive. To prove the first supporting reason, you could employ figures dealing with the price of coal, etc. How would you prove the second reason? Try it, discussing the work with your classmates. Then select any one of the following similar topics and prepare to prove it orally in conference:

A man should offer his seat to a woman in a crowded street car.

Knickers should be prohibited for school wear.

Girls should be taught social dancing in high school as part of their gymnastic work. (One conference; one day.)

IX. In any argument you have not only to prove your own points, but also to tear down your opponent's arguments. Sometimes you are not prepared for his arguments and are consequently at a loss as to how to meet them. In Lewis and Hosis, p. 258, select as many of the exercises as you think you need for practice work in refutation. *Be sure first that you know what the term "refutation" means.* If you do these exercises with other girls in the class, you will profit by their criticism. (One day.)

X. Cut out from a newspaper or a magazine a good example of

refutation. Analyze it so that you can state just what the writer is refuting. Do not confuse the negative side of any argument with refutation. Come to conference ready to discuss your article.

(One day; one conference.)

XI. Write a paragraph refuting any one of these arguments:

You do not need a new school dress because the silk you have been wearing for dress occasions will serve.

Every girl should learn cooking and sewing while she is in school because she will need such knowledge in her later life.

A man should give his seat to a woman in a crowded car for a man is stronger than a woman, and, therefore, better able to stand.

*Be particularly careful at the beginning of your paragraph and be sure you know what you are refuting.* (One day.)

At this point your teacher will probably give you a test, either oral or written, on all the points so far covered. She will expect you to know the meaning of all the terms used in argumentation that have been referred to in your assignments. She will expect you to be able to reason logically, and to detect false reasoning. She may ask you to analyze a proposition, to give reasons for and against and to prove your reasons. If you do not feel prepared for this test, do more of the drill work that has been assigned.

## 12A LITERATURE

The tone is interesting. There is a definite attempt to stimulate interest in wider personal reading.

### APPRECIATION OF THE CONTEMPORARY FAMILIAR ESSAY

You have been getting acquainted with the various current magazines in connection with your short story work. Have you by any chance discovered the charm of the "Lion's Mouth" of *Harper's*, or of the "Contributor's Club" of the *Atlantic Monthly*?

If you have, you need no introduction to familiar essays. If you haven't, you have a treat in store.

*Essay and Essay Writing* edited by Tanner (collection from the *Atlantic Monthly*) is an excellent volume to begin with. Notice the five types of essays included in the volume. Read first "The Saturday Night Bath"; then, "Endicott and I Conduct an Orchestra."

Note that the interest does not lie in startling or unusual situations but in the charming portrayal of the commonplace or in the whimsical reaction of the writer to the subject.

One of the greatest American contemporary writers of the essay is a Philadelphian, Agnes Repplier. Be sure to make her acquaintance. Christopher Morley, a former Philadelphian, should also be on your list. Frances Warner is by this time an old friend, for "Endicott and I Conduct an Orchestra" is hers. Be ready to tell later of what other essays of hers you like particularly.

As you read your essays, consider some of the little, everyday, familiar things that might lend themselves to light, humorous, or whimsical treatment in essay form. Jot down your possibilities. Choose one to write on, letting us see the thing through your eyes and making us feel your personality.

Mr. Tanner says: "Throughout the entire history of the essay personality has been the most important characteristic."

Suggestions: If you are interested you might enjoy reading the discussion at the beginning of *Essay and Essay Writing* on "The Essay" as a "Literary Form and The Origin and Development of the English Essay."

On page xix, you will find a list of contemporary English essayists. Pages xxii to xxv contain further suggestions for the study of the essay.

Note that there is provision for group work. Guidance is comparatively slight in the following assignment.

#### ADAM BEDE

You have read two of George Eliot's novels: *Silas Marner* and *The Mill on the Floss*. You are to read a third, *Adam Bede*, which most people consider the author's most natural and most interesting piece of work.

Plan to finish your reading in about three weeks; that means reading approximately 175 pages a week. Talk over the story with your friends as you go along. If you find any marked differences of opinion, bring the question to me.

When a large enough number have finished the novel, we shall

have two conferences for general discussion. The discussions will be more enjoyable if the *entire* class is ready to take part at one time.

The following questions and statements will be used as a basis for discussion:

I. What do you think the author's prime purpose was in writing this novel?

II. Are there any characters in *Adam Bede* who make you think of people in *Silas Marner* or *The Mill on the Floss*?

III. Does the author make her characters real enough for you to understand and sympathize with them?

IV. "George Eliot's heroes and heroines differ radically from those of Dickens in this respect — when we meet the men and women of the latter novelist, their characters are already formed. In George Eliot's novels the characters develop gradually as we come to know them."

V. We look to George Eliot for the reflection of country life in England.

(Frequent and very definite reference to parts of the story will make the discussion more profitable and decidedly more interesting.)

## 12 B LITERATURE

### THE BUNKER HILL ORATIONS

Before you read the *Bunker Hill Orations*, you will want to know the occasion for these addresses, and why Webster was the chosen orator. You will find this material in your introduction, or in more detail in a history or a dictionary of biography. Read the first and second *Bunker Hill Oration*.

What does Webster consider the significance of this monument? How does he arouse the sympathy of his auditors? Be ready to point out definite passages.

We shall have a conference for the entire class on March 27. Be ready to discuss these orations then.

If you have time, read one of the war addresses of Woodrow Wilson. Compare this with the addresses of Washington and Webster. Whom do you prefer as a speaker? Why?

The following assignment shows the possibility of giving general guidance which will cover several units of work.

Units I and II will be continued throughout the term.

I. Your reading list and the decision of the class as to the number of books to be read really constitute a large part of our term's contract in literature.

There are certain things one is likely to ask about a novel. Is it interesting? Why? Is it realistic, or romantic? Has it humor, pathos, or tragedy? Are the characters real flesh and blood people? Do you wish to read another book by the same author?

At the end of our fourth week, March 6, we shall have a conference on our reading. Can you finish one novel by that time, and be ready to discuss it and defend your opinions? Our discussion will be more interesting if everybody has finished one novel.

When you have finished one book, write on a 3 X 5 card a very brief report of it, giving your personal opinion too. As soon as that report is accepted, go on to another book.

II. Contemporary poetry. After we have spent at least a period reading our favorite modern poets aloud in class, go ahead with your poetry reading; get better acquainted with the modern poets you know slightly and make new friends.

As you read, find out what subjects each poet loves best to write about. Is it the sea? Is it love? Is it people? Is it everyday commonplace things? Is it far-off, romantic things?

Notice the poet's keen insight into life and ability to condense a great deal of thought into a line or two. Notice bits that have particular appeal.

As you read (see poetry collections in the English room, the current magazines, and the collected works of the authors) select the poems that you wish to include in your poetry collections which will be called for in early June. You may want to group your poems or poets according to subjects treated. (Use your own judgment as to length or collection. It is the significance of your choice, rather than the number of poems that counts.)

III. *The Rise of Silas Lapham*: This is the only novel which the entire class will read this term. It may be fitted into the assignment for any month, as your teacher decides.

Read the novel. You will be interested in the introduction. Apply to this novel the questions given you in your contemporary novel contract. In addition to these points, you will wish to discuss

the significance of the title and the ethical questions involved in the story.

## 12B COMMERCIAL LETTERS

Letters of claim and adjustment: Opdyke and Drew, chapter VI.

I. Why is the tone of the letter of claim or adjustment particularly important?

What occasions necessitate letters of this type? Study the illustrative letters given in chapter VI in your textbook, and in at least one other book of commercial letters. Are they "tactful and telling and temperate?" Select some which seem to you to meet this requirement.

On page 122, you will find suggested letters. Write letters 1 and 2, or letters 4 and 5. Do your letters follow the directions given on page 104? (Four lessons, approximate time to be spent on I.)

II. Letters of inquiry and information, chapter VII.

Read the introduction and sample letters, and decide what are the chief virtues of good letters of inquiry and information.

On page 164, choose letter 4, 5, or 8. Write the suggested letter, and then answer it.

Whenever possible, talk over your letter with another 12 B girl before submitting it to me. (Four lessons, approximate time to be spent on II.) (Total — twenty lessons on commercial lessons for February and March.)

## HISTORY AND SOCIAL SCIENCE

### I. Social Science

- A. Elementary Civics — Vocational: first term
- B. Advanced Social Problems: fourth year

### II. History

- A. Ancient and Medieval: first year
  - 1. Commercial — one term
  - 2. Academic — two terms
- B. European: second year
  - 1. Renaissance to 1815 — one term
  - 2. 1815 to the present — one term
- C. American: third year
  - 1. Discovery to 1850 — one term
  - 2. 1850 to the present — one term

### 9 A VOCATIONAL CIVICS

After eight years in school, you are old enough, and have advanced far enough to consider whether or not you want more education, and, if you want it, what kind and why. This course is to help you think that problem through. Consider it seriously, and when you have solved it for yourself, work hard to realize your aim.

Problems: (Four weeks.)

- I. People work with the object of satisfying their wants.
  - A. What is the difference between the wants of the savage and the wants of the members of a civilized community?
  - B. What difference is there between the way savages satisfy their wants, and the way civilized men satisfy their wants?
  - C. Make a list of twenty important individual wants, arranging them in the order of their importance.
  - D. Make a list of twelve important community wants.

Leavitt and Brown, *Elementary Social Science*, pp. 1-7, 21-24, and Hughes, *Economic Civics*, pp. 19-21. (Five days.)

II. What should the worker expect as the result of his labor? List five results given by Leavitt and Brown, pp. 27 to 29, and explain briefly, in your own words, what is meant by each.

# III. Since in modern times we satisfy our wants indirectly, let us see how it is determined where our different wants shall be cared for.

A. Clothing: Where is cotton produced? Where made into cloth? Into clothing? How about wool? Where does the leather for shoes come from?

B. Food: Where are oranges raised? Cranberries? Wheat?

C. Shelter: Where do bricks come from? Stone? Lumber? Why are these things raised, or produced, where they are? Why are they manufactured in a different place, frequently? Pictures in the assembly room will bear on this. Read: Hughes, pp. 116 to 121; encyclopedia and geographies.

We could also raise oranges around Philadelphia if we built green-houses and heated them. Would that be desirable? England produces much finer wool than we do and produces it very cheaply, but the high tariff we have on wool keeps most of it out of the country. Why do we have such a tariff? Suppose all such tariffs were removed by all countries, what would be the effect on the production of goods? Would this be desirable?

IV. Let us now see how it is determined by whom our different wants shall be satisfied. From problem III, we can see that the part of the country in which we live may affect the kind of work we do, but, on the whole, we ourselves have a great deal to do with the choice of our occupation.

A. Ask two relatives or friends these questions. Put answers in notebook, naming first the kind of work each is doing.

(1) Why did you go into your work? (2) Do you like it? (3) Would you rather do something else?

B. Make lists of: (1) All the reasons that are apt to influence people in choosing their work. (2) The possible results when people choose their work foolishly. (3) The things people should consider in choosing their vocation. If they considered these things, would the results be different from the list you have just made? Explain.

Read: Giles and Giles, *Vocational Civics*, pp. 1 to 8. (Three days.)

V. What assistance is available in helping us make a wise choice of occupation?

A. The government. Make a list of the provisions of the Pennsylvania Child Labor Law. Which of these are particularly helpful in keeping children from foolish choices?

B. The school. (1) What special advisers are there in the school to help you make the best choice for yourself? (2) Make a list of the subjects you should take in high school if you want to be (a) a stenographer; (b) a bookkeeper; (c) a school teacher; (d) a music teacher; (e) a sewing or cooking teacher.

Read: *Abstract of Pennsylvania Child Labor Law*. See *Freshman Guide*, and consult your senior guide. (Three days.)

# Not required. Extra credit.

This study of educational opportunities follows the two months of investigation of vocational opportunities.

NOTE: In assembly-room civics: Just as you did last month, continue to take notes on the talks given in the assembly, writing them up in your notebooks for your next class period.

I. A. The elementary schools. Ethel has just graduated from the Southwark School. Make a list of all the occupations (1) that she can enter directly from the grade school, (2) that she can enter after a short period of training in special schools, following the eighth grade.

B. The high schools: For what occupations will the high school definitely prepare her? (One day.)

II. Special schools. In addition to the schools just mentioned, we have in Philadelphia such institutions as: Drexel Institute, Pennsylvania School of Social and Health Work, Girls' Trade School, Philadelphia Normal School, School of Design, School of Industrial Arts, Philadelphia College of Pharmacy, Temple University, University of Pennsylvania, and a large number of business colleges. From the catalogues of these schools, and from the people you know attending them, answer these questions: (1) Which of these schools are public? What difference in cost does this make to the student? (2) For what vocation or vocations will each prepare you? How long does it take to complete the school training necessary for each vocation? (Four days.)

III. Other sources of education. What sources of education are

there in Philadelphia other than the schools? Read *Leavitt and Brown*, pp. 91-94, and then make out a list of all you know or can find out in Philadelphia, explaining what each has to give. (Two days.)

References: *Wanamaker's Friendly Guide Book to Philadelphia; Trolley Guide; Philadelphia Directory*.

IV. Labor of women. Several months ago you learned that the government cares for children under sixteen by making certain regulations in regard to their hours of labor, etc. Pennsylvania feels it necessary also to protect the women who work. Let us see, then, what care the government is willing to take of you when you are through school and go to work.

Read: *Abstract of Laws Protecting Women and Children*.

What are the hours of labor for women?

What regulation of night work is there? Of lunch hour?

What provisions are made for their comfort? For sanitation? (One day.)

V. (Extra credit, not required) (1) How was women's labor looked upon in the past? (2) How did the Great War affect it? (3) What are the reasons for women's work? (4) How do women's wages compare with men's? Why the difference? (5) What are minimum wage laws? Does Pennsylvania have one? (6) What are arguments for and against such laws? (7) What is the effect of women's labor on the home?

VI. (Extra credit, not required) Labor of children: Many of your grammar school classmates have gone to work. Why? (1) Make a list of reasons why they and many other children are at work today. (2) What are the bad effects of child labor (a) on the child, (b) on industry, (c) on society? (3) How does the government attempt to control child labor? (4) What besides laws is necessary to prevent disastrous child labor?

VII. The sweat shop: (1) What is it? (2) What are its bad effects? (3) Why does it exist? (4) How can we get rid of it?

References for problems II to IV: Hughes, *Economic Civics*, pp. 156-160, 162; Towne, *Social Problems*, pp. 59-112; Ashley, *New Civics*, pp. 293-295; Burch and Nearing, *Elements of Economics*, pp. 103-111.

## 12A SOCIAL SCIENCE

The order in which political machinery and political problems are studied depends upon elections, political procedures reported in the newspapers, etc.

Last month we found out something about the making of our laws, and the reaction of people to them. It is necessary to have some one person responsible for enforcing these laws. Why *one* person? This month we shall inaugurate that person, our president. So let us find out how he is chosen and what he has to do.

Bibliography: Ashley, *New Civics*; Hughes, *Problems of Democracy*; Magruder, *American Government*; Woodburn and Moran, *Citizen and the Republic*; Hart, *Actual Government*; Beard, *Readings in American Government and Politics*; Beard, *American Government and Politics*; Bryce, *American Commonwealth*; *The Federalist*; McElroy, *Life of Grover Cleveland*.

## THE ADMINISTRATION OF OUR LAWS

Problem I: The choice of an executive.

It takes about a year to nominate, elect, and inaugurate a new president. Starting with the Presidential Nominating Convention, find out about every step in the process. What direct share have the people in each step?

Who is the state executive? The city executive? Are they chosen in the same way as the president?

## Party platforms, 1924.

References: Ashley, pp. 101-104; Hughes, pp. 522-531; *Constitution*, Article II, section 1, part 2, first sentence, and twelfth amendment; Woodburn and Moran, pp. 246-255; Magruder, pp. 104-109. Conference. (Two days.)

Problem II: The work of the executive.

A. Find out what the Constitution says about the powers and duties of the president. Add to this list or illustrate it, from things you find in papers or magazines.

B. Do you think any of these duties or powers are burdensome? Why?

C. How does the president find out what the people want? How

does he let the people know what he wants to do? Can he influence public opinion? Does it influence him?

D. Compare the president's powers and duties with those of the governor, — of the mayor. Do they overlap? Account for the limitations on the governor's power. What are some states doing about it?

References: *Constitution*; Ashley, pp. 252-255; pp. 211-215; Hughes, pp. 460-463; 469-470; Woodburn and Moran, pp. 165-167; pp. 255-275; Magruder, pp. 111-120; pp. 268-274. Conference; quiz. (One week.)

Problem III: The assistants of the executive.

Of course one person cannot do all of this work. Each executive has assistants.

A. Learn the positions in the president's cabinet and the names of the present members. Do the same with the mayor's. Does the governor in Pennsylvania have a cabinet? If so, find out about its members.

B. Find out about the main duties of each member. Do they overlap? Watch the papers for any reference to any cabinet officer or his work.

## C. Make a detailed report of the work of one department in the president's cabinet. (Pamphlets on desk.)

D. How do cabinet officers get their positions? How are they removed? Should the executive be unrestricted in these matters? Recall the incident of President Coolidge and Secretary Denby and Attorney General Dougherty, or General Butler and Mayor Kendrick.

E. What other country has a cabinet? How is it different from ours?

## F. Find names and duties of important boards and commissions that help the president.

References: Ashley, pp. 255-257; Hughes, pp. 464-469; 475; 478; Magruder, pp. 120-121; pp. 127-177; Woodburn and Moran, pp. 323-325; pp. 335-336; *City Charter*; *State Constitution*. Conference; quiz. (One week.)

Problem IV: Relation of executive and legislative bodies.

A. Make a list of all the things president and Congress must do together, — of all the ways they can check each other. Illustrate each.

B. Do mayors and governors have the same relations with legislatures?

Reference: Ashley, pp. 243-244; pp. 253-254.

Problem V: New phases. This scheme of checks and balances has not worked in cities.

A. Read what Viscount Bryce says. Find the reasons for the failure.

B. Study the new forms being tried as remedies, finding how officials are chosen, how laws are made, and their advantages and disadvantages. Does Philadelphia use either form? Where are they used?

Reference: Ashley, pp. 178-179; Hughes, pp. 516-519; Woodburn and Moran, pp. 133-144; Magruder, pp. 334-341. Conference; quiz. (Three days.)

## Maximum assignment.

Additional electives for maximum assignment.

A. The civil service:

Beard, *American Government and Politics*, pp. 222-230; Hart, *Actual Government*, ch. 14; McElroy, *Life of Grover Cleveland*, Vol. I, ch. VI.

Find out the evils of the past; reforms accomplished and what still remains to be done.

B. History of the daily life of presidents:

Hart, *Actual Government*, pp. 259-261; 267-268; 274-275. Get an idea of the daily grind of the president's life.

C. Choice of a president:

Beard, *Readings*, ch. IX, pp. 64-67; 69; 70.

D. The duties of the president:

Beard, *Readings*, ch. X, pp. 71-78; *The Federalist*, pp. 69-72.

#### INTERNATIONAL RELATIONS

All the term we have been studying about our own government. In addition to being citizens of our city, state, and nation, we are citizens of the world. We shall spend this month studying our relations with other nations so that we may help in the movement for world peace.

Bibliography: Ashley, *Civics*; Baker-Crothers and Hudnut, *Prob-*

*lems of Citizenship*; Beck, *Constitution of the United States*; Haskins and Lord, *Some Problems of Peace Conference*; Hendrick, *Life and Letters of Walter H. Page*; Hughes, *Problems*; Lansing, *The Peace Negotiations*; Latané, *America as a World Power*; Long, *Government and the People*; Magruder, *American Government*; *Statesman's Yearbook*; Woodburn and Moran, *Citizen and the Republic*.

Problem I: Our relations with other countries. (Four days.)

A. Compare the way individuals and nations treat each other. Come to some conclusion as to what is needed.

B. What is international law? Find out how it is made and enforced.

C. What are the regular means of communication among nations? Know the different positions in our foreign service; and the qualifications they do and should have. Find the names of our ministers to some of the important nations.

D. Find out the different kinds of agreements made between nations and how they are made.

References: A., pp. 367, 370; H., pp. 579-592; Ma., pp. 127-133; Long, pp. 406-407; pp. 416-422; W. and M., pp. 379-381.

Problem II: Our foreign policy. (Four days.)

A. Be sure you can explain and give examples of the three ideas that have characterized our policy.

B. When and why did United States change from her policy of isolation to that of a world power?

C. List as many things as you can in our own and other foreign relations that have tended to cause war.

D. Make an outline of all efforts and achievements toward world peace from 1783 to 1925.

E. What remains to be done? Is there anything United States can do?

F. What share and responsibility have *you*?

References: A., pp. 367-370; 378; H., pp. 592-603; Long, pp. 407-415. Conference.

Problem III: The League of Nations. (Four days.)

A. What was said concerning world peace during the World War?

B. Trace step by step the League: its proposal and rejection by the United States. Find reasons for this.

C. Describe the machinery of the League.

D. See if you can discover some things (four or five) the League has done.

E. Study about the Disarmament Conference and its accomplishments.

References: H., pp. 603-610; Long, pp. 415; Pamphlet on League, W. and M., pp. 403-410.

Maxima.

I. Woodburn and Moran, pp. 385-394, or Latané, *United States as a World Power*, ch. 15. What does the Monroe Doctrine really say? Find the instances when it has been applied.

II. *Life and Letters of Walter H. Page*. Read some of the letters written when Mr. Page first went to England. Get an idea of the ordinary work of an ambassador. Read some letters before and after the United States entered the war. What additional duties did war bring?

III. Read article X of *League Covenant*. Why did the United States object to the provisions of this article? *Statesman's Year Book*, 1919, and pamphlets.

IV. Find the provisions in *League Covenant* intended to prevent or postpone war. Do you think that they will prove effective? *Statesman's Year Book*, 1919.

V. What were the means taken by the Hague Court to prevent war? Compare them with those of the World Court. Which seem to you the best? Pamphlet.

VI. Latané, ch. 14. On what occasions has the United States resorted to arbitration?

VII. Baker-Crothers and Hudnut, ch. 28. Find out what Pan-Americanism is and what has been done to help it along.

VIII. Baker-Crothers and Hudnut, pp. 432-435, 437-440. Describe our policy in the Far East.

IX. Lansing, ch. 2 and 3. What reasons are given for President Wilson's attendance at the Peace Conference? Trace the general plan for establishing a League.

X. Haskins and Lord, pp. 24-31. Find out how peace conferences work.

XI. Beck, ch. 20. Find Mr. Beck's reasons for thinking the president should not have sole power in foreign affairs. Do you think his reasons are sound?

## 12 B SOCIAL SCIENCE

Material for this work is very plentiful but discrimination must be used in its choice.

Book references for the month: (1) Burch and Patterson, *American Social Problems*; (2) Burch and Patterson, *Problems in American Democracy*; (3) Towne, *Social Problems*; (4) Ellwood, *Sociology and Modern Social Problems*; (5) Williamson, F. R., *Problems in American Democracy*; (6) Williamson, F. R., *Readings in American Democracy*; (7) Barnard and Evans, *Citizenship in Philadelphia*.

Problem I: The city and its problems.

A. You have found that city life prevails. List the problems peculiar to the city, and show their effect on the family. (One day.)

B. 1. You are a housing inspector. Write a detailed account of a house that violates the housing laws. (Preferably from personal experience.)

2. What agencies and laws has Philadelphia to prevent and improve bad housing conditions?

3. If it is true that Philadelphia has adequate housing laws, why is it that in "The City of Homes" there exist such bad conditions? (Five days.)

C. The city's moral problems affect the family. Amusement today is commercialized. What problems arise from this, and how would you remedy them? (Try to see connection with Test A — Problem 1 for February.) (One day.)

## D. Older cities did not plan for future growth. Reproduce a plan of some actual city or village (industrial or otherwise), built according to new standards. Include graphic plan and list its characteristics.

References: Reference 1, ch. 12; reference 2, chs. 11 and 12; reference 3, ch. 12; and pamphlets of the Philadelphia Housing Association on desk.

Problem II: The United States and her immigrants.

You have discovered how intimately connected our immigrants and the housing problem are; this was not always true, for immigration to the United States has changed since 1880.

A. Contrast the immigrant of 1880 and the one today as to nation-

ality and group characteristics; reasons for coming; geographical distribution and type of work done in the United States.

On an outline map of the United States, indicate geographical distribution of foreign-born. (1920 census) (Two days.)

B. The newer immigrant has affected our modern life by bringing us both contributions and problems.

Make a list of these contributions. Discuss the problems that have arisen for us, as to their cause; their effect on us; their remedy. (One day.)

C. The United States has enacted many immigration restrictions. Arrange these in chronological order and give reasons for the enactment of those that apply to Europeans. Do you think those restrictions just? Justify your answer. (Three days.)

D. The western immigration problem is a very different one from ours.

1. Why does our West object so strongly to Oriental immigration? Criticize and defend this attitude.

2. What restrictions has California law placed on this group? Are they justifiable?

3. List the United States legislation that applies to Orientals. Give reasons for the enactment, and criticize or defend each act.

4. Before 1924, Japanese immigration was regulated by the so-called Gentlemen's Agreements. Who was the initiator of them? Discuss how they were observed by Japan. Why, and by what were these agreements superseded in 1924? (Current material.) What has been Japan's reaction to our recent change in policy? (Current material.) (Four days.)

## E. Select any immigrant group which has ever come to our country. Trace its history in America. (May include South America.) Have they developed a "race or group consciousness"; are they merged with the population?

References: Reference 1, ch. 8, 9, 10; Reference 2, ch. 13 and 14; Reference 3, ch. 2 and 3; Reference 4, ch. 9 and 10; Reference 5, ch. 20; Reference 6, ch. 20; and current material.

NOTE: ## are for special credit.

The two problems following are intimately connected with our social and economic life.

## 12 B SOCIAL SCIENCE

Bibliography: (1) Burch and Patterson, *American Social Problems*; (2) Burch and Patterson, *Problems of American Democracy*; (3) Towne, *Social Problems*; (4) Williamson, F. R., *Problems in American Democracy*; (5) Williamson, F. R., *Readings in American Democracy*; negro magazines, *Opportunity*; *The Crisis*. Pamphlets and *Negro Year Books* at desk.

Problem I: The negro problem.

A. 1. Make a list of the mental, moral, and physical characteristics of the negro.

2. Show how these are a product of his life in Africa and in America under the period of slavery.

3. What contributions has the negro made to American life? (Two days.)

B. 1. Describe the course of action taken by the United States in respect to the negro during reconstruction. What was its effect on his progress?

2. What was the *Civil Rights Act* of 1875? Ref. 5, ch. 22; *Negro Year Book*. (One day.)

C. 1. Define the "black belt." What is its relation to the problem?

2. The race problem is no longer confined to the South. Date and show causes of the recent migrations, and their effect on the North and South. Have there been any constructive efforts to deal with the problems arising out of this migration? *Readers' Guide*; *Annals of Amer. Acad.*, no. 187, Nov., 1921; ref. 5, ch. 22; *Publications of the United States Government*; Bureau of Education and Division of Negro Economics; *Housing in Philadelphia*, 1923, by Bernard Newman; *Opportunity*, February, 1924.

3. What is the social condition of the negro, in respect to such things as intermarriage, crime, poverty, health?

4. How, in your opinion, will the negro problem be solved? Consider here the work and opinions of such leaders as W. E. B. DuBois and Booker T. Washington, as well as of Hampton and Tuskegee Institutes.

General references for problem: Ref. 1, ch. 11; ref. 2, ch. 15; ref. 4, ch. 22; ref. 5, ch. 22 (fine) (Three days.)

Any two for extra credit :

## 1. What educational and economic progress has the negro made in the last sixty years? Hampton pamphlet, *Fifty-six years of Negro Progress, Statistics of Negro Business League*, and *Survey Graphic* for March, 1925.

## 2. Discuss the character and policy of some leading negro publication.

## 3. At what are negroes employed? In what occupations are they relatively numerous? In what occupations are they relatively few? Ref. 5, ch. 22.

## 4. What is the National Association for the Advancement of Colored People? Discuss its history, work, and policy. Are there other national negro societies? *The Crisis*; Hampton leaflet, see # 1; ref. 5, ch. 22.

## 5. Investigate the type of work done by the Armstrong Association in Philadelphia, 1434 Lombard St.

Problem II: Unemployment.

Unemployment is a waste of one of our greatest national resources — labor.

A. 1. Is there ever a period of no unemployment in America? How prevalent is unemployment? Calculate its costs, to the individual and society.

2. Discuss its causes; propose remedies, especially for the industrial causes. Ref. 3, ch. 8, especially ref. 1, ch. 16; ref. 2, ch. 31, and pamphlets of the American Association for Labor Legislation. (Two days.)

B. Briefly outline the scheme of England, the leader in the field of social insurance. *Statesman's Year Book*; *World Almanac*; Ashley: *Modern European Civilization*, ch. 25. (Two days.)

One for extra credit :

## 1. Outline unemployment provisions made by some industrial concern in America.

## 2. Discuss the "aftermath of unemployment" from the point of view of a charitable society. What social ills can be traced to this source? Pamphlet of Philadelphia Society for Organizing Charity.

## Maximum, or optional, assignments.

## 9 A HISTORY (Academic)

The Academic girls spend an extra half year on European history and so proceed more slowly than the commercials.

## ASSIGNMENT I

Problem I: Babylonia.

A. Recitation unit.

1. Locate Tigris and Euphrates rivers, Babylonia, Assyria, Ur, Babylon, Nineveh. Jastrow, map, p. 4.

2. List succession of city kingdoms with dates: West, pp. 29-40.

3. In the law code of Hammurabi, 2100 B.C. (Davis, pp. 35-38.)

a. Pick out examples of an "eye for an eye, and a tooth for a tooth" law.

b. Would you have liked to have lived under this law?

c. What effect did law have on land? P. 38.

B. Electives, — choose two:

1. Describe how the Babylonians earned their living. Herodotus, Vol. I, pp. 193-200.

2. What was the position of woman? Herodotus, Vol. I, p. 184.

3. Describe Assyrian warfare after reading invasion of Judea by Sennacherib. Chronicles, II, ch. 32-33.

4. Draw diagram of city of Babylon, rebuilt by Nebuchadnezzar, as described in Herodotus, Vol. I, Bk. 1, ch. 178, p. 90.

5. What was the contribution to art of the Babylonian peoples? De Forest and Caffin, pp. 21-31.

References: West, pp. 29-40; Jastrow, *Civilization of Babylonia and Assyria*, p. 4; Davis, *Readings in Ancient History* (Greece), pp. 35-38; Herodotus, Vol. I, Bk. 1, ch. 178; Chronicles II, ch. 32-33; De Forest and Caffin, *History of Art*, pp. 23-31. (Three days.)

Problem II: Hebrews.

A. Recitation unit:

1. Read West, pp. 48-52 for location of Syria and Palestine, founder of race, sojourn in Egypt, Exodus, conquest of Palestine, political history (written outline), contribution to civilization.

2. What did the Hebrews leave at the Jordan to tell about their past? Joshua, ch. 4.

3. What would you say was the position of woman among the Hebrews? Proverbs, ch. 31.

4. Babylonian Captivity:

a. What is meant by it?

b. What were the feelings of the Jews on being transported from their homes? Psalm 137.

c. What prophecy did Isaiah the Prophet make while they were in captivity? Isaiah, ch. 11.

d. Who released them from captivity? Josephus, *Antiquities*, Bk. XI, ch. I.

e. Why did some of the Jews remain in Babylon? Pp. 360-361.

B. Electives, — choose two:

1. Read the account of the geography of Syria. Note map of ancient Palestine; *National Geographic*, Nov., 1919.

2. Compare the story of the flood given in Genesis, ch. 6-9, with the Babylonian account in Botsford, *Source Book*, pp. 33-38.

3. Give an account of the building of the Temple, Kings I, ch. 6-8.

4. How were criminals treated? Deuteronomy, ch. 5, v. 41-43; Numbers.

References: West, pp. 48-52; *Bible*, Joshua, ch. 4; Proverbs, ch. 31; Psalm 137, Isaiah, ch. 11, Kings, I, ch. 6-8; Deuteronomy, ch. 5; Numbers; Josephus, *Antiquities of the Jews*, Bk. XI, ch. I, pp. 360-361; *National Geographic*, Nov. 1919; Botsford, *Source Book*, pp. 33-38; and Genesis, ch. 6-9. (Three days.)

Problem III: Phoenicia.

A. Recitation unit:

Read West, pp. 46-47, for location, chief cities, industry, cities colonized, service to humanity of Phoenicia.

B. Electives:

1. What did the Phoenicians trade? Ezekiel, ch. 27. (One day.)

Problem IV: Medes, Lydia, and Persia.

A. Recitation Unit:

1. West, pp. 41-45. Location of Lydia and Halys River, Plateau of Iran. Religion of Persians.

2. One elective is to be read by each one for story-telling in class, in the very best literary style.

B. Electives:

1. Medes: (1) How were they organized? (2) What was the

nature of the court of Deioces? (3) The extent of their empire? Herodotus, Vol. I, Bk. I, ch. 94-107, pp. 50-56.

2. Lydia: (1) Location of Halys River; (2) Anecdotes from life of Croesus, invasion of Cappadocia, treatment by Cyrus. Herodotus, Bk. I, ch. 6-33, 46-55, 56-94.

3. Persia: Biography of Cyrus the Great, Herodotus, Bk. I, ch. 108-214, pp. 57-108. (Four days.)

#### ASSIGNMENT II

Bibliography: Davis, *A Day in Old Athens*; Plutarch, Clough trans. (Everyman ed. 1); Tarbell, *History of Greek art*; Thucydides, *Peloponnesian War*; Wells, *Outline of History*; West, *World Progress*; Xenophon, *Anabasis*; Xenophon, *Memorabilia of Socrates*.

Problem I: Athenian leadership and the age of Pericles.

A. Read West, pp. 97-102, 103-123, to find following information: The nature of the Delian League, how it developed into the Athenian Empire; political organization of Athens during age of Pericles; great contributions of Athenian life.

B. Give Plutarch's characterization of Pericles; Plutarch I, pp. 304-309.

C. Draw a diagram of the city of Athens; Davis, map, p. 7.

D. Characterize three types of architecture. It may be well to draw diagrams or models. Tarbell, pp. 82-89; 93-101; 103-105.

E. Describe the Parthenon; Tarbell, pp. 190-199.

F. Choose either the Erechtheum or the Temple of Wingless Victory to describe; Tarbell, pp. 199-201, 201-202.

G. Choose a piece of sculpture of Phidias to describe; Tarbell, pp. 184-188.

H. Choose a piece of sculpture of either Polyclitus or Praxiteles to describe. Note how to distinguish their sculpture. Tarbell, pp. 206-208, 217-227.

I. Prepare one chapter from Davis on social life of the Athenians for special report work in class. (Eight days.)

Problem II: Peloponnesian War and civil strife.

A. Read West, pp. 124-127, 127-132, for the following information: cause of war, methods of attack, what Persia did, how Sparta ruled cities, and an account of the March of the Ten Thousand.

B. What had been the foreign policy of Pericles? Plutarch I, p. 316.

C. Secure a typewritten copy of the *Gettysburg Address* and the speech given by Pericles in commemoration of Athenians who died the first year of the war:

1. Pick out likenesses and differences between two speeches.

2. Is there anything that would not have been appropriate at Gettysburg, in the speech of Pericles? Is there anything in the speech of Lincoln that would not have been appropriate at Athens in the fifth century, B.C.?

3. What is your conclusion?

D. Read account of plague: Why would you not like to have lived in the city at this time? Thucydides, pp. 128-136, Bk. II, ch. VII.

E. In Xenophon's *Memorabilia of Socrates*, Bk. IV, ch. VII:

1. What knowledge do we get as to the suffering of the people?

2. What trades did the people follow?

3. What impression do you get of the character of Socrates?

F. Xenophon in his *Anabasis*, Bk. V, ch. VIII, pp. 225-230, gives an account of his leadership of the Ten Thousand Greeks. Do you think he was justified in his treatment of the soldier who complained? (Four days.)

Problem III: Macedonian conquest and the Age of Alexander.

A. Read West, pp. 132-139, for following information: location of Macedonia; what Philip did there, who opposed his conquering Greece, his schemes for conquest, battle of Chaeronea. Prepare material for telling the life of Alexander in class.

B. Secure a typewritten copy of the estimates of the character of Alexander, given by H. G. Wells, a modern historian, and Arrian, an ancient Greek. Compare opinions of each; then form your own opinion.

C. What happened to the kingdom after Alexander's death? West, pp. 140-147.

D. Another great period of Greek life appeared, known as the Hellenistic period. Pick out things in which the Greeks excelled during this period. In what ways did this world resemble modern Europe? West, pp. 140-147. (Four days.)

## 9 B HISTORY (Academic)

## ASSIGNMENT I

Bibliography: Ashley, *Early European Civilization*; Botsford, *Brief History of the World*; Davis, *Readings in Ancient History, Rome*; Emerton, *Introduction to the Middle Ages*; *Encyclopedia*. Harding, *The New Ancient*; *Medieval and Modern History*; Munro, *The Middle Ages*; *Old Testament*; Plunket, *Europe in the Middle Ages*; Wells, *A Short History of the World*; Van Loon, *The Story of Mankind*; Webster, *Ancient History*.

You have followed the Roman Empire through its rise and decline.

Problem I:

A. List her contributions.

B. Her greatest is *law*. (1) How did Justinian make this a usable one? (2) Look at the map of the Roman Empire and determine what countries in Europe would use Roman law today. (3) Louisiana is the only state that uses Roman law. Account for this. West, pp. 247-248; 263. (One day.)

Problem II:

A. The founding and principles of Christianity: (1) Sketch the life of Christ. (2) (a) Why was he born in Bethlehem? Luke, ch. II, v. 1-8. Optional: (b) What specific thing did Christ mean when he said, "Render unto Caesar the things that are Caesar's"? Matthew, ch. 22, v. 17-23. (3) Give the fundamental principles of Christianity, Matthew, ch. 5, v. 1-12; 21-26; 38-48; ch. 6, v. 1-5; ch. 7, v. 1-6. Optional: (4) Compare Socrates and Jesus as to (a) early life, (b) teachings, (c) attitude of people toward them.

Read Botsford, pp. 154-156 and Van Loon, pp. 118-123. Optional: Wells, pp. 214-221.

B. The spreading of Christianity: (1) Why and how did Christianity spread? (2) Discuss fully why the Christians were persecuted. (3) What are the Catacombs? Why did they originate? (4) Name two things that Constantine did for Christianity. Evaluate the importance of each.

Read West, pp. 237-243; Davis, pp. 286-288; and Plunket, pp. 20-29. Optional: Emerton, pp. 93-96; Van Loon, pp. 131-137. (Three days.)

C. The organization of the church: (1) Name and discuss the duties of the officers of the early church. (2) In two columns, parallel the officials of the church and of the empire. Explain your diagram. Webster, pp. 521-522. (3) What caused the Catholic Church to split into the Greek and the Roman Church? (4) Discuss three reasons for the growth of papal power. (5) What Pope helped most in this growth? Give a short sketch of his life. *Encyclopedia*.

Read West, pp. 255-257; Plunket, pp. 52-53; Botsford, pp. 157-159. Optional: Harding, pp. 85-92. (Three days.)

D. Monasticism: (1) Define monasticism. Was it peculiarly characteristic of Christianity? (2) List the reasons for its growth. (3) "The monasteries kept the torch of civilization burning during the Middle Ages." Explain this. (4) Give the requirements of the Rule of St. Benedict. Why was it necessary? (5) Name some other monastic orders that started at this time. (6) Optional: Imagine yourself a monk writing your diary; discuss (a) your reasons for becoming a monk, (b) your vows, (c) your dress, (d) appearance of the monastery, (e) your daily program.

Read Davis, pp. 350-352; West, pp. 251-252; Emerton, pp. 135-144.

Optional: Ashley, pp. 345-347; pp. 414-417; Plunket, pp. 123-129; Munro, pp. 62-64. (Three days.)

We shall now study the conquerors of Rome.

Problem III:

A. Where did the Germans originally live?

B. Describe their physical characteristics, home life, and government. Contrast these with the Romans of the empire.

C. Trace on your map the wanderings of two of the tribes. In your discussion show how these differed from our modern idea of invasion.

D. Describe their three methods of trial. Account for their use.

E. List their reasons for coming into the empire.

F. Why were they able to conquer Rome?

G. The period immediately after the conquest is called "The Dark Ages." Account for this name.

H. It is said that both Rome and the Germans benefited from this conquest. Explain why.

Read West, pp. 244-252; Botsford, pp. 146-153; Davis, pp. 312-316. Optional: Plunket, pp. 15-20; Munro, pp. 27-35; Emerson, pp. 18, 19, 63, 64, 68-69, 71, 72, 119, 120; and map on p. 10. (Five days.)

Problem IV: Optional.

A. What is your opinion of Attila as a leader?

B. How do the Huns differ from the Germans?

C. "The Huns were responsible for the founding of Venice."

Explain this. Read Emerson, ch. V, and Davis, p. 322.

Problem V: Optional.

A. Write a short sketch of Alaric.

B. What was the effect of Alaric's conquest of Rome? Read Davis, pp. 316-318, Plunket, pp. 40-42, and an *Encyclopedia*.

#### ASSIGNMENT II

Bibliography: Botsford, *A Brief History of the World*; Davis, *Readings in Ancient History*, Rome; Emerson, *Introduction to the Middle Ages*; Munro, *The Middle Ages*; Plunket, *Europe in the Middle Ages*; Robinson, *History of Western Europe*; Robinson, *Readings in European History*; Vol. I; Tappan, *Old World Hero Stories*; Tappan, *When Knights Were Bold*; Tappan, *History Stories of Other Lands*; Webster, *Early European History*; Wells, *A Short History of the World*; West, *Early Peoples*; Van Loon, *The Story of Mankind*; Webster, *Readings in Medieval and Modern History*.

Six hundred years after Christianity came another religion with which Christianity came in contact in both the East and West, Mohammedanism.

Problem I: The Mohammedans.

A. Jot down the important facts in the life of Mohammed. Compare them with the events in the lives of Christ and Socrates. How do the principles of this religion differ from those of the Christian? Explain the meaning of Hegira, Mecca, The Black Stone, Caliph, Rhamadam.

B. Account for the rapid spread of Mohammedanism. Outline the extent of the empire in 750. Contrast the Mohammedan and western culture during the Middle Ages.

Read Botsford, pp. 166-167, 192-193; West, pp. 253-255, 294-

295; and Wells, pp. 248-257, or Emerton, pp. 122-129, or Munro, ch. XIX. (Four days.)

C. Optional. Whence are these Mohammedan sayings obtained? What opinions do they express about women, divorce, treatment of animals, and business methods? Webster's *Readings*, pp. 52-55.

D. Optional. What was Mohammed's opinion of life after death? Davis, pp. 358-359.

E. Optional. What is your opinion of Bagdad's civilization? Remember that at this time the cities in the West had almost disappeared. Davis, pp. 365-367.

*Against these infidels were waged the Crusades.*

Problem II: The Crusades.

A. In your study of the Crusades discuss (1) the number, (2) causes, (3) motives for going, (4) outstanding leaders, (5) results.

Read West, pp. 295-297, and Botsford, pp. 194-197, and Plunket, ch. XII, or Webster, pp. 466-481, or Robinson, pp. 187-200.

Three of the following topics must be done; the rest are optional:

B. What inducements were offered to Crusaders? Who granted these? Who would have this power today? Robinson, *Readings*, Vol. I, pp. 337-340.

C. Describe the throne room of the eastern emperor. How were the visitors entertained at the banquet? What ancient people had such repasts? Robinson's *Readings*, pp. 340-343.

As a contrast read Robinson, pp. 320-321 and give your opinion of the breeding of the western knight.

D. Around the Crusades have grown up many stories about the leaders. Contrast Tappan's picture of Peter the Hermit and his Crusade with that of Munro. Account for the difference. Munro, pp. 244-245; Tappan, *Old World Hero Stories*, ch. XXVII.

E. Why is the Third Crusade sometimes called the Royal Crusade? What was the German attitude toward Frederick? Why was Richard called the Lion-hearted? Who was the greater man, Philip Augustus or Saladin? Tappan, *Old World Hero Stories*, ch. XXVII.

F. Who preached the Children's Crusade? Would a modern father have allowed his children to go on this? Tappan, *Old World Hero Stories*, ch. XXVIII.

G. Contrast the method of conquering Jerusalem with modern warfare. *History Stories*, pp. 50-57. (Three days.)

*After the Crusades towns began to grow.*

Problem III: Medieval towns.

A. Describe a medieval town. Why and how did they grow up? Why were the strongest ones found in Italy? Contrast the problems of these towns with those of a modern city.

Read West, pp. 297-299, and either Webster, pp. 529-534, or Tappan, ch. X. Optional: Van Loon, pp. 174-190.

B. Guilds played a dominant part in town life. Compare a guild and a modern trade union as to (1) purpose, (2) requirements for membership, (3) assistance granted to members, (4) effects on society.

Read West, pp. 299-301, and either Webster, pp. 534-540, or Munro, pp. 346-347.

C. Fairs characterized this period. Write a letter to a friend in Constantinople describing one. Account for the great number of fairs held during this period. Read Munro, pp. 348-349 and Tappan, ch. XII.

D. The Hanseatic League appeared about this time. Discuss (1) meaning, (2) reasons for growth, (3) requirements, (4) attitude of England toward the League, (5) advantages and disadvantages of it. Read Plunket, pp. 285-290, and Webster, pp. 548-549. (Five days.)

Optional. Read any of these three books and write a brief resumé: Irving, *The Conquest of Granada*; Irving, *The Alhambra*; Plummer, *Stories from the Chronicle of the Cid*.

The Irving references did not carry so well as expected; hence a wider variety should be offered.

## 9 B HISTORY (Commercial)

### GREECE

References: Elson, *Modern Times and the Living Past*, Part I; Webster, *Ancient Civilization*; West, *Early Peoples*; Mahaffy, *Old Greek Life*.

The first centers of civilization were in the Orient. But in time civilization spread westward and Greece adopted and adapted the ideas of the East and to these added others of her own. Our study this month is of Greece.

Problem I: The land of Greece. Suggested topics for study: its location and geography, the mountains, rivers, coastline, climate, soil, and their influences on art.

References: Read Elson, Part I, pp. 60-61, 65 and maps opposite pp. 41 and 64; and either Webster, pp. 120-128, or West, pp. 84-87. (One-half day.)

Problem II: The early people of Greece. Suggested topics: their early centers, their civilization, and the sources of our knowledge of them.

References: Read Elson, Part I, pp. 61-62; 70-71, and either Webster, pp. 137-141, or West, pp. 53-61; note pictures. (One-half day.)

Problem III: The Greek religion. Suggested topics: their deities, nature and names; the manner in which they worshipped; *i.e.*, the oracles, games, processions, drama, the temples, and the influence of their religion on art.

References: Read Elson, Part I, pp. 71-77, and either Webster, pp. 155-164, or West, pp. 64-66; 114-115. (Three days.)

Problem IV: Greek art. Suggested topics: its forms (3), characteristics, inspiration, and the most important examples of each kind. In your study of the Parthenon, note its purpose; draw a plan in your notebook and describe it; note carefully its decoration and its architect and artist. Draw also in your notebook examples of the three types of Greek columns. Be able to name and discuss five pieces of Greek sculpture and their creators. (See bulletin board.)

References: Read Elson, Part I, pp. 94; 96-98, and pictures; and either Webster, pp. 601-615, or West, pp. 71-72; 106-107; 143 and pictures, pp. 71-72; 75, 106-134.

See pictures on bulletin board and in *Geographic Magazine*. (Four days.)

Problem V: Greek literature. Suggested topics: its forms (5) and a great writer of each, and their chief works. Be able to define epic and lyric poetry. What is the great value of Homer's work to history? Compare a Greek theater to ours, as to purpose, style of building, scenery, actors, etc. Find the characteristics of each of the three historians of Greece. What does philosophy mean? Be able to tell the story of the ideals, methods, and life of Socrates, and the influence on history of his two followers.

References: Read Elson, Part I, pp. 99-107; and either West, pp. 106-112 and 143-144, or Webster, pp. 181-183 and 248-257. (Four days.)

Problem VI: Greek citizenship. Suggested topics: its ideals and limitations; its greatest leader, his name and service.

References: Read Elson, pp. 81-84 and 93-95; and either Webster, pp. 220-223 and 231-233, or West, pp. 104-107, 112-113 and 147. (Two days.)

Problem VII: The spread of Greek civilization. Suggested topics: the causes for the spread; the methods and the location of the new centers.

References: Read Elson, Part I, pp. 89-91; and Webster, pp. 176-180. (One day.)

Problem VIII: The conquest of Greece. Suggested topics: the causes, the conquerors, and the results.

References: Read Elson, Part I, pp. 122-125 and 131; and Webster, pp. 260-270 and 277-278. (One day.)

Problem IX: Map work. On a map given you, locate Athens, Sparta, the regions colonized by the Greeks, and the regions over which Alexander spread Greek civilization. Consult maps in Elson, Part I, opposite p. 89, and Webster, p. 276. (One day.)

Extra credit. Get from your teacher copies of source material of the following:

I. *Teachings of the Early Greek Sages upon Religion and Morality*. Compare these teachings with the study you have already made of the Egyptian, Hebrew, and Christian teachings, by adding a fourth column and placing those alike in the opposing columns.

II. *Picture of Greek School Life*, taken from a recently discovered papyrus, and Mahaffy, pp. 52-55. Try to discover from these the equipment of a Greek school boy, what he was taught, and school discipline. Compare his experiences with those of a school boy of today.

III. *Manner in Which an Athenian Gentleman Passed his Morning*. Was this man busy? wealthy? Give proof for your answers. Compare his life with the life of the Egyptian farmer.

This contract illustrates our early method of putting the optional work at the end.

## WESTERN EUROPE

Bibliography: Text and Botsford, *A Brief History of the World*; Webster, *Early European History*; West, *Early Peoples*.

The journeys of the Crusaders could not be without their effects upon the life of western Europe.

Problem I: The revival of learning. (Three days.)

Suggested topics for study: The intellectual condition of the people in the Middle Ages, and the causes for this; the causes for the revival of learning (review the work of the monasteries); the universities, *i.e.*, where, and when they arose, life in them, subjects taught, methods of teaching, most famous teachers and universities. Who or what were Abelard, scholasticism, the philosopher's stone, Roger Bacon? Name at least five of the most famous pieces of medieval literature.

References: Elson, pp. 222-223; 300-307; West, pp. 301-304; Botsford, pp. 212-214; Webster, pp. 266-278.

Problem II: Architecture (Two days.)

Suggested topics: Review your study of the plans and general appearance of Egyptian and Greek temples and compare them with the cathedrals of the Middle Ages. What are motives which inspired Gothic architecture, its main features and decoration? Name and locate five of the most important cathedrals. Do such motives exist today and do they find expression in the building of cathedrals?

References: Elson, p. 313; West, p. 304; Webster, pp. 562-566. Source material on desk.

Problem III: The growth of towns.

What are the causes and period of their rise? Write a paragraph describing one, its streets, homes, public buildings, protection, etc. What are some of the results of the growth of towns on the civilization of a community?

References: Elson, pp. 280-283; Botsford, pp. 217-218; West, pp. 297-299; Webster, pp. 529-534. (One day.)

Problem IV: Commerce and industry. (Three days.)

Suggested topics: A. The guilds: Learn the meaning of the word "guild"; the causes, organization, rules, advantages, and disadvantages of the guilds. What were merchant guilds, craft guilds,

masters, journeymen, apprentices? Compare and contrast a modern trade union with a guild.

B. The fairs: Where were they held? When? What purposes did they serve in the community? What were the difficulties of travel and trade in the Middle Ages? What was the Hanseatic League, its purposes, members, service to civilization?

References: Elson, pp. 282-283 and 291; West.

Problem V: The Renaissance. (Three days.)

Suggested topics: What is meant by "Renaissance"? What were its causes, origin, extent, forms of expression? Who were the chief leaders in each field? Compare the art of the Renaissance with that of Greece. Be able to name and describe five examples of Renaissance art and tell the creators.

References: Pictures on bulletin board and in assembly room. Elson, pp. 309-313; Webster, pp. 589-594; 597-600; West, pp. 321-324.

Extra credit: Consult your teachers.

NOTE: The teachers suggested topics as the girls finished the assignment. The girls were at liberty to suggest others, to be approved by the teachers. The girls were confined to one topic each, emphasis being put on bibliography and on arrangement of material gathered from different sources.

## 10 A HISTORY

### FRENCH REVOLUTION

This assignment emphasizes the textbook material and the information to be obtained from it.

References: Elson, *Modern Times and the Living Past*, Part II; West, *Modern World*; Ashley, *Modern European Civilization*; Webster, *Readings in Medieval and Modern History*.

Foreword: Last month we learned of England's struggle for parliamentary government. This month let us learn of the awakening of the French to a desire for more freedom, and of the *French Revolution*.

I. The Old Régime, Louis XIV. Read E., pp. 403-411; W., pp. 405-410; A., pp. 64-70.

A. Look up the general conditions on the continent during this period.

B. Outline the history of Louis XIV, the typical ruler of the period, finding (1) improvements under Colbert, (2) culture of the period, (3) life at the court of the king, (4) religious policy, (5) general cause and result of his wars.

II. Conditions in France during the eighteenth century which caused the Revolution. Read E., pp. 433-436; W., pp. 426-434; A., pp. 139-147.

A. Political conditions. Find (1) type of government, (2) how carried out.

B. Social conditions. Find (1) names of classes, (2) their part in French life.

C. Sketch religious conditions. (I and II, one week's work.)

III. Rousing of the people. Read E., pp. 436-438, 441-445; W., pp. 434-441; A., pp. 126-128, 147-150.

A. Give the names and teachings of the writers of the period.

IV. Calling of the Estates-General. Read E., pp. 445-448, 450-452, 455-457; W., pp. 443-445, 448-449, 453-455; A., pp. 150-152, 155-158.

A. Look up the meeting of the Estates-General, finding (1) what the Estates-General was, (2) the significance of its meeting.

B. Find cause of the deadlock at the beginning of the meeting and the victory gained by the commons.

C. Outline the provisions of the constitution, the chief work of the Estates-General. (III and IV, one week's work.)

V. The Revolution itself. Read E., pp. 448-468; W., pp. 446-472; A., pp. 153-154, 158-168; W., *Readings*, pp. 311-320.

A. Write in your notebook a list and brief explanation of the excesses or mistakes of the revolution; E., pp. 448-449, 452, 462-468.

B. Find the names of the radical leaders and clubs of the period.

C. Look up the cause and results of the wars fought with "foreign" countries during the period.

D. What forms of government existed in France during the revolution? How do you account for the changes in government?

VI. Results of the Revolution. Read E., pp. 469-471; W., pp. 473-474; A., pp. 164-166. Answer as fully as possible. (V and VI, two weeks' work.)

VII. Extra credit problems: not required.

Imagine yourself a traveler in France from 1787-1789, and write your impressions of what you saw: (1) through the country, (2) at Versailles. Read W., *Readings*, pp. 296-306; Hazen, *Modern European History*, pp. 32-34, 42, 43; *National Geographic Magazine*, Jan. 1925, pp. 49-62.

#### THE RENAISSANCE AND THE REFORMATION

Bibliography: Adams, *Civilization during the Middle Ages*; Botsford, *Brief History of the World*; Cheyney, *European Background of American History*; Elson, *Modern Times and Living Past*, Part II; Robinson, *Readings in European History*, Vol. II; Webster, *Readings in Medieval and Modern History*, *European Early History*; West, *Modern World*; Van Loon, *Story of Mankind*.

Foreword: You have studied the beginnings of things, and the development of the great civilizations of ancient times. Then there was a period of chaos and fighting, and the development of a few fine things, but no great civilization. At last came the Renaissance, when through the study of the old civilizations, a new one was developed, and the one on which our modern life is based. Since the Renaissance is the period of transition from the Middle Ages to modern times, let us review what we have learned about it.

Unit I. The Renaissance. Review. (Three days.)

A. Required: Botsford, pp. 242-250, or West, pp. 310-319, and your notebook. Summarize the work of the Humanists, and the great art and artists of Italy. Note the scientific discoveries and inventions, particularly those of Galileo, Copernicus, and Gutenberg. What was Galileo's belief about the world?

B. Electives: 1. Description of Venice, time of Renaissance. Webster, *Readings*, pp. 143-145. Picture to yourself the city, the palace, the church. What was the attitude of the church toward money treasure?

2. Leonardo da Vinci. Webster, *Readings*, pp. 188-191. What kinds of things could he do? Does Vasari's description of the Mona Lisa agree with what you see in the picture?

Unit II. The Renaissance. Geographical discoveries. (Four days.)

A. Required: Botsford, pp. 269-279, and West, pp. 318-322. What countries began the period of discovery and exploration? Describe those countries, give their reasons for exploring, make a list of their greatest explorers, and show, on an outline map of the world, the extent of the empires they built up.

B. Electives: 1. The Spanish monarchy in the Age of Columbus. Cheyney, ch. V, pp. 82-86; 102-103 (Harpers 1904 edition). How did Ferdinand and Isabella extend the royal authority? What was the position of Spain in Europe?

2. Marco Polo. Webster, *Readings*, pp. 196-199. Where were Polo's explorations? Tell the story he brings back from Persia about the three kings.

Unit III. The Reformation. (Four days.)

Another phase of the Renaissance is the Reformation in which people broke with the teachings of the past.

A. Required: Elson, pp. 319-337; and Webster, *Early European History*, pp. 662 and ch. XXVII, sec. 228, 230. Describe the condition of the Catholic Church at the beginning of the sixteenth century. What was the Great Schism? Describe the work of Wycliffe and Huss. Give an account of the early life and training of Luther, and tell how he came to break with the church. What were the most important of his views as they differed from those of the church? Describe the Diet of Worms. What was Luther's work at Wittenberg? Give an estimate of Luther's character. Why did not Charles V crush the Protestants? What was the Augsburg Confession? Describe the Reformation in Switzerland. On a map of Europe, show the extent of Protestantism and Roman Catholicism.

B. Electives: 1. The Reformation. Van Loon, pp. 251-261. What differences does Van Loon see between the people of northern and southern Europe, and their attitude towards religion? Who started the war on the church? How does Van Loon describe the Reformation?

2. Luther's theses. Robinson, pp. 57-61. Note particularly nos. 40, 43, 44 and what Luther thinks better than buying pardons. Does he think the pope knows of the sale of pardons? See no. 50.

3. Luther's letters to Pope Leo X. Webster, *Readings*, pp. 228-232.

Is Luther respectful to the pope? Why does he refuse to withdraw his theses?

4. Luther's part in the Reformation. Adams, pp. 416-418, 424-426. What two elements in Luther's nature led to his revolt? What was his purpose in posting the theses? What was the effect of their publication?

#### ENGLISH HISTORY

Bibliography: Cheyney, *A Short History of England*; Creighton, *Age of Elizabeth*; Elson, *Modern Times and the Living Past*; Part II; Green, *Short History of the English People*; Quennell, *A History of Everyday Things in England*; Robinson, *History of Western Europe*; Traill, *Social England*; Webster, *Readings in Medieval and Modern History*.

Foreword: Last month we saw how the spirit of the Renaissance caused the people in Europe to create beautiful pieces of art and literature, make scientific discoveries, search out new lands and finally think new thoughts about religion. Let us see now how this spirit affected the people in England.

Unit I: The Reformation in England. (Four days.)

A. Required: Elson, pp. 337-343, 352-355; Cheyney, pp. 289-328. Trace carefully the changeful course of the Reformation in England, noting especially the part played by the rulers, by parliament, and by the people.

B. Elective: The Counter Reformation. Elson, pp. 344-346; Robinson, pp. 437-451. Describe the methods of the Counter Reformation. Were they successful?

Unit II: England in the Age of Elizabeth. (Five days.)

A. Become acquainted with the Queen.

1. Required: Cheyney, pp. 330-331; West, pp. 369-376.

2. Elective: Green, pp. 369-376.

B. The enemies of Queen Elizabeth; Mary, Queen of Scots, and Philip II of Spain. Find out why they were her enemies, what trouble they caused, and how Elizabeth dealt with them.

1. Required: Elson, pp. 355-357; Cheyney, pp. 340-345, 361-367.

2. Elective: Creighton, pp. 62-67. Compare Mary and Elizabeth.

C. Social and industrial conditions.

1. Required: Elson, pp. 357-359; West, pp. 364-369; Cheyney, pp. 336-339, 367-374. Find out: (a) Why sheep-raising became a

great English industry. (b) What affect this industry had on different classes of people. (c) What the government did about it.

2. Electives: (a) Webster, *Readings*, ch. XXIV. What conditions does William Harrison describe of which an Elizabethan might be proud? Ashamed? (b) Traill, Vol. III, Sect. II, pp. 512-547. This is a most interesting book. Look through these pages, reading whatever interests you.

D. The literary renaissance in England. Cheyney, pp. 374-379; Elson, pp. 359-361. Name the great writers of the period. Write in your notebooks the names of any of their works that you have studied in English class.

Unit III: Beginnings of political liberty. (Six days.)

Henry VIII and Elizabeth you have noted were practically absolute rulers. Next month you will study the struggle between Parliament and the King for the right to rule the nation. Before we turn to that struggle it will be necessary to find the beginnings of political liberty in England.

A. The Normans had established the power of the king as chief executive.

1. Required: Cheyney, pp. 125-128; West; pp. 150-152. Find (a) when the Normans ruled England; (b) how they established the king's power.

2. Elective: Webster, *Readings*, pp. 72-78. Compare the Normans and Anglo-Saxons.

B. Trial by jury had been secured.

1. Required: Explain (a) the early method of trial, (b) the system introduced by Henry II, (c) how that system developed later. Cheyney, pp. 148-154; West, pp. 162-171.

2. Elective: Traill, Vol. I., Sect. II, pp. 411-416. By what means did the courts try to prove a man innocent or guilty?

C. The basis of a constitution had been laid through the winning of Magna Carta. Required: Cheyney, pp. 179-182; West, pp. 165-167.

#### NAPOLEON

References: Elson, *Modern Times and the Living Past*, Part II; Webster, *European History*, Part III; Webster, *Readings in Medieval and Modern History*; West, *Modern World*.

Foreword: Last month we studied of the struggle of the French people for liberty during the French Revolution. This month we shall study how conditions at the close of the Revolution gave an opportunity for the rise of one man to power, and of the work of Napoleon.

I. Rise of Napoleon to power. Read E., pp. 469, 472-476; Webster, Part III, pp. 520-522; West, pp. 479-483.

A. Find the date and place of Napoleon's birth.

B. Trace his rise to fame in France, finding (1) results of his Italian campaign, (2) his reception in France after the Egyptian campaign, (3) the story of how he seized the French Government.

II. Napoleon as Consul of France. Read E., pp. 476-478; Webster, Part III, pp. 523-525; West, pp. 484-488.

A. Look up the following in connection with the consulate: (1) The power it conferred on Napoleon, (2) How it was ratified by the people.

B. Explain Napoleon's work for the betterment of France, finding (1) provisions for the local government of France, (2) codification of the laws, (3) restoration of the church, (4) other changes. (I and II, one week's work.)

III. Napoleon as Emperor. Read E., pp. 478-482; Webster, Part III, pp. 525-531; West, pp. 489-491.

A. Look up the change from consulate to empire, finding (1) how the change was accomplished, (2) how Napoleon suppressed criticism of the change.

B. Outline the story of Napoleon's war with Europe, finding (1) the importance of each of the following: Trafalgar, Austerlitz, Jena, Tilsit; (2) territory controlled by Napoleon at the height of his power; (3) ideas carried by the French troops throughout Europe; (4) the reorganization of Germany. (III, one week's work.)

IV. Decline and fall of Napoleon. Read E., pp. 483-491; Webster, Part III, pp. 531-541; West, pp. 491-499, 503, 504.

A. Look up the continental system, finding (1) what it was, (2) its effects.

B. Trace the revolt of the nations of Europe, finding (1) the general cause of revolt, (2) the importance of Leipzig, Elba, Waterloo. (IV, one week's work.)

V. Extra credit.

A. Write a character sketch of Napoleon, based partly on the statements in your text, and partly on outside reading. Webster, *Readings*, pp. 323-348.

B. Compare the views of Napoleon given by Wells in *Outline of History*, and Van Loon in *Story of Mankind*.

## 10 B HISTORY

Much of the following assignment calls for considerable imagination. It is well done by the intelligent girls, who find writing diaries and letters interesting. The poor students fail to accomplish much.

### THE GROWTH OF DEMOCRACY IN ENGLAND

Bibliography: Cheyney, *Short History of England*; *Readings in English History*; *Industrial and Social History*; Hazen, *Modern European History*; Van Loon, *Story of Mankind*; Traill and Mann, *Social England*; Robinson and Beard, *Readings in European History*; Bland, Brown, and Tawney, *English Economic History*; *Select Documents*; Ogg, *Social Progress in Contemporary Europe*; *Economic Development of Modern Europe*; Trevelyan, *British History in the Nineteenth Century*.

Fiction for March: Mrs. Craik, *John Halifax, Gentleman*; Dickens, *Oliver Twist*; *Old Curiosity Shop*; *Great Expectations*; Kingsley, *Alton Locke*; Eliot, *Silas Marner*; *Felix Holt*; Mrs. Gaskell, *Mary Barton*; Erckman and Chatrian, *A Man of the People*; Besant, *Children of Gideon*.

Introduction: France obtained democracy through revolution and all the economic ills that go with it. England progressed by evolution or peaceful means.

Problems: Consult only one textbook, unless it is unsatisfactory, on a particular topic.

### *First Week; Need of Parliamentary Reform*

A. Explain the connection between the Industrial Revolution and the demands of the people for reform of Parliament. Ashley, para.

187-195; Hayes and Moon, pp. 369-372; 388-395; Elson, Part II, pp. 502-508; 512-513; Webster, Part III, pp. 640-649; 654-655. (One day.)

B. Pretend that you were a member of Parliament in 1831 and write a stirring speech in answer to that of Sir Robert Inglis of March, 1831. (Cheyney, *Readings*, pp. 683-684.) To make your speech convincing you must explain the political conditions in England before the Bill of 1832 was passed. Ashley, para. 328-333; Hayes and Moon, pp. 444-445; Webster, Part III, pp. 577-578; Cheyney, *Short History*, para. 564-566. Class conference. (Two days.)

C. Optional.

1. Read in Cheyney, *Readings*, the article that appeared in Cobbett's *Weekly Register* (pp. 663-664) and discover the sentences there that would be likely to arouse the workers to a struggle for political rights.

2. Pretend that you are a visitor in England about 1830 and describe in your diary the poverty and unemployment that you see there. Consult Ogg, *Social Progress in Contemporary Europe*, pp. 227-238; Traill, *Social England*; Cheyney, *Industrial and Social History*; Ogg, *Economic Development*, pp. 327-387.

*Second Week: Parliamentary Reform Acts and the Present Government of England*

A. In parallel columns for comparison write in your notebooks the provisions of the Acts of 1832, of 1867, of 1884, of 1911, of 1918. This diagram should show how each act extended democracy to more people. Ashley, para. 334-345; 350-351; Hayes and Moon, pp. 445-446; 620-624; Elson, Part II, para. 533-534; Webster, Part III, pp. 577-580; 680; Cheyney, *Short History*, para. 567; 594; 597; 623 (very fine). Ashley, para. 461, 462, 517. (Two days.)

B. Government of England. Read Ashley, para. 356-360 or Webster, Part III, pp. 576-582, or Elson, Part III, para. 460, to discover the character of the British Constitution, of Parliament, of the cabinet and of local government in England. Know what is meant by the expression, "ministerial or parliamentary government," and the effect of the English system upon other countries. Class conference. (One day.)

*Third Week: Social Reforms before 1873*

With every parliamentary reform bill, there were also passed reform bills along other lines.

A. Religious reforms. Explain the need of religious reform in 1825 and the results.

B. Reform of the Penal Code. Read the "Report of a Committee of the House of Commons" (1820), in Cheyney, *Readings*, p. 670. Make a list of reasons why reform was necessary. (One day.)

C. Labor reforms:

1. From the testimony given in the Parliament of 1830-1833 (Cheyney, *Readings*, pp. 692-694), make a list of the conditions that made reform necessary.

2. Compare the successive acts from the law of 1788 for chimney sweeps to the Factory Act of 1833 inclusive, with our present Pennsylvania Child Labor Law and proposed Child Labor Amendment to the Constitution, arranging the provisions in two parallel columns, showing their similarities and differences. (One day.)

D. Free trade:

1. From Hayes and Moon, pp. 395-401; 446-448; 628-629; define "laissez-faire" and explain how that doctrine would affect (a) labor unions, (b) factory laws, and (c) protective tariff.

2. Read Ashley, para. 342 and 343; or Elson, Part II, para. 468; or Webster, Part III, pp. 658-660; and Cheyney, *Short History*, para. 580-582, to discover causes and results of free trade in England. (One and a half days.)

E. Find Gladstone's connection with the Irish church, Irish land problems, education, labor unions, and methods of voting between 1867 and 1872. Ashley, para. 338-341; 345; Elson, Part II, para. 515; 518-521; para. 457; 465-468; Webster, Part III, pp. 665-668 and Cheyney, *Short History*, para. 560-562; 569; 595. Class conference. (Half day.)

F. Optional:

1. In Cheyney, *Readings*, para. 410, p. 669, read the observations of the Russian Emperor in 1814, and compare them with Harry Elmer Barnes, *Cure for Present Day Crime* (your teacher's desk), and state reasons why the latter is preferable.

2. Read the comparison of Gladstone and Disraeli in 1838 in

Cheyney, *Readings*, pp. 723-725 and in Hayes and Moon, pp. 618-620; decide which you consider the greater and justify your decision by illustrations.

*Fourth Week: Social Reforms, 1870-1914*

A. In parallel columns, show the political parties in England and their leaders during the past forty-five years. (One day.)

B. Outline the causes, provisions, and results of Lloyd George's *Budget Bill*, 1909. Ashley, para. 346-350; Elson, Part II, para. 521-522; 531-533; and Cheyney, *Short History*, pp. 610-611; 620-622. *Major test*.

C. Optional:

1. Read Lytton Strachey's *Life of Queen Victoria* and hand in a report on the same before June 1, 1925.

NINETEENTH CENTURY IN ITALY AND GERMANY

Bibliography: Ashley, *Modern European Civilization*; Hayes and Moon, *Modern European History*; Hazen, *Modern European History*; *Literary Digest*; October 11, 1924; Ogg, *Economic Development*; *Governments of Europe*; Robinson and Beard, *Readings*, Vol. II; Thayer, *Dawn of Italian Independence*, Vol. II; Van Loon, *Story of Mankind*; Webster, *European History*, Part III; Crawford, Marion, *Saracinesca*; Meredith, George, *Vittoria*.

Introduction: In France and in England the primary aim of the nineteenth century was democracy. In Italy and in Germany the struggle for democracy was coupled with and sometimes overshadowed by the more pressing problem of unification.

I. Unification of Italy. A. Draw and color a map in your notebooks of Italy, 1815-1848, using dotted lines to show obstacles presented by the presence of foreign and papal states. (Webster, pp. 547 and 565; Hayes and Moon, p. 495; Hazen, p. 266.)

B. Outline the revolutionary movement of 1848, showing the steps taken toward democracy and those toward unification and independence. List the permanent results. (Hayes and Moon, pp. 495-500; Webster, p. 557; Ashley, p. 295; Hazen, pp. 264-266; 328-329.)

C. Why did the King of Sardinia lead in the cause of Italian union? Describe the work of Mazzini, Garibaldi, and Cavour.

(Hayes and Moon, pp. 500-503; Hazen, pp. 325-335; Ashley, pp. 295-298; Webster, pp. 560-563.)

D. Trace the growth of the Italian nation from the War of 1859 to 1870. (Hayes and Moon, pp. 503-506; Hazen, pp. 333-340; Webster, pp. 563-567; Ashley, pp. 298-302.)

E. From one of the following books, make a list of Italy's social and economic problems since 1870; Hayes and Moon, pp. 507-514; Ashley, pp. 348-353; Hazen, pp. 411-415. (Four days.)

*Supplementary reading on unit one:* Robinson and Beard, II, pp. 115-121; 126-128; 130-138; Crawford; Meredith; Ogg, *Economic Developments*, pp. 471; 562-564; *Governments*; pp. 516-518, 520-532, 546-549; Thayer, ch. IV; Van Loon. Class conference.

II. Growth of nationalism in Germany. A. Make a list of the main states in the German Confederation, stating in parallel columns, the government, location, and importance of each. Know the origin and government of the Confederation. (Hayes and Moon, pp. 517-520; Webster, pp. 547, 567, 568; Ashley, pp. 211, 212; Hazen, pp. 259-262.)

B. List reasons why it was easier to unite Germany than Italy, not neglecting the importance of the Zollverein. (Ashley, pp. 302-305.)

C. Know the causes, events, and results of the Revolution of 1848 in Austria and Germany. (Hayes and Moon, pp. 521-529; Ashley, pp. 279-282; Webster, pp. 552-559; Hazen, pp. 298-310, 341-343.)

D. Compare the character, politics, methods, and achievements of Cavour with those of Bismarck, and estimate each. (Hayes and Moon, pp. 501-506; 529-537; Ashley, pp. 285-302, 306-311, 316-319; Webster, pp. 562-565, 569-573; Hazen, pp. 329-339, 343-361.)

E. Make a chart showing causes of and relationship between the Wars of 1864, 1866, and 1870, and the effects of each on German unification. (See references under problem D.) (Three days.)

*Supplementary reading on unit two:* Robinson and Beard, pp. 158-159, 142-154; Ogg, *Governments*, edition of 1913, chs. IX-XIV; Van Loon. Class conference.

III. Modern European governments. A. In parallel columns, compare the governments of England, France, Italy, and Germany in 1914. (*Literary Digest*, October 11, 1924, p. 38, and your text.) Major test.

IV. Electives. A. Using the description of "Garibaldi and His Thousand," by Henry Adams, which your teacher will read you, write an imaginary interview with, and description of Cavour in 1850 for the *Boston Courier*.

B. From pictures which will be shown you, report for the *Boston Courier* the coronation of the German Kaiser at Versailles in 1871.

C. From a comparison of the accounts of Bismarck, and the Ems Despatch given in Bismarck's *Autobiography*, write a news article giving what you consider Bismarck's true intention. (Typewritten material on teacher's desk.)

## 11 A AMERICAN HISTORY

### AMERICAN REVOLUTION

Bibliography: Muzzey, *American History* as text; *American History Leaflets*; Andrews, *Colonial Self Government*; Bancroft, *History of the United States*; Bassett, *Short History of the United States*; Beard, *History of the United States*; Cheyney, *European Background of American History*; *History of England*; Coman, *Industrial History of the United States*; Elson, *History of the United States*; Fiske, *Old Virginia and her Neighbors*; *American Revolution*; *Great Epochs of American History*; Green, *Short History of the English People*; Hart, *History as Told by Contemporaries*; Longfellow, *Evangeline*; MacDonald, *Select Charters Illustrative of American History*; *Old South Leaflets*; Parkman, *Half Century of Conflict*; Shackleton, *Book of Philadelphia*; Thwaites, *Colonies, France in America*; Tyler, *England in America*; Wister, *Straight Deal or an Ancient Grudge*.

We have seen how this new world was settled, and the beginnings of colonial self-government, and have learned something of the men bred in such environment. This month we shall see how these circumstances, and events rising out of them, brought about an English-speaking independent state.

Unit I: The Colonies between 1660-1689. (Two days.) Suggested topics: The mercantile theory, what it is and how it worked; the Navigation Acts. List and classify, with causes, dates, and effects.

References: Muzzey, pp. 67-71; Beard, pp. 64-72.

## Electives:

A. Political Conditions in England, 1600-1689: relation of King and Parliament, and the change in this relation; the two theories of government. Cheyney, *European Backgrounds*, pp. 240-260, or *Short History of England*, pp. 513-514; Bancroft, Vol. I, pp. 325-334.

B. English Government of American Colonies: Increase of royal colonies, cause, colonies, results. Draw map (Muzzey, p. 68), using color and dating each colony. Andrews, pp. 36-40.

C., William Pitt: Life, character, and political opinion. Greene (ill.), Vol. IV, 1661-1699.

D. Navigation Acts: Purposes, provisions, effects of act of 1663. MacDonald, pp. 133-136; Guitteau, pp. 79-85.

E. Life in the South. Compare with that of New England or of Quakers as to faith, customs, dress, home life, amusements. Thwaites, *Colonies*, pp. 96-111; Fiske, *Old Virginia*, Vol. II, pp. 204-225; Tyler, pp. 114-117; Muzzey, pp. 24-29.

Unit II: The Colonial Wars, 1690-1763. (Four days.) Suggested topics: Review the location of French and English settlements; bases of French claims; differences between French and English ideas of colonization; European conditions behind the wars; work of Franklin and Washington; victories at close of wars; terms of treaty of Paris. Reference, Muzzey, pp. 81-103.

## Electives:

A. The Acadians: location, causes, and results of removal. Parkman, pp. 183-203; Shackleton, pp. 34-38; Hart, Vol. II, pp. 360-365; *Great Epochs*, Vol. III, pp. 51-58; Longfellow, *Evangeline*. Elson, pp. 181-183.

B. Redemptioners: Fiske, *Old Virginia*, pp. 174-189; 249; Elson, p. 199.

C. The Patroon System: Compare with Feudalism, as to homes, relation of lord to people, system of land-holding and agriculture. Thwaites, *France in America*, p. 124.

D. Pontiac's Conspiracy. Elson, pp. 194-195; Bassett, p. 13.

E. Daniel Boone and early Kentucky: Causes of founding, location, early history and significance. *Great Epochs*, Vol. III, pp. 78-87; 87-93.

Unit III: Causes of the Revolution. (Four days.) Suggested topics: List the immemorial rights of Englishmen, effects on them

of the Navigation Acts, and the authority of Parliament. Make a chart of the causes of friction and of the effects of this friction upon the colonists both in thought and action. Muzzey, pp. 107-125.

Electives:

A. English opinions of the American cause. Compare the opinions of Burke and Pitt with those usually credited to England. Note also those of Grenville, North, and Townshend as expressed in acts of Parliament. Account for difference. Wister, pp. 85-96; Hart, Vol. II, no. 142; *Old South Leaflets*, no. 200; Bassett, pp. 162-169; 169-174.

B. The Loyalists. Their opinions and a justification of them, their treatment and what became of them. Hart, Vol. II, pp. 470-480; Elson, pp. 236; 252; 266; 293-294; 317.

C. Writs of assistance: Note the form, the purpose, and the authority granted; and notice especially the way in which their use affected individual liberty. MacDonald, pp. 258-261; Beard, pp. 88-89.

Unit IV: The birth of a nation. (Four days.) Suggested topics: Trace the growth of the idea of independence in the second Continental Congress, and the effects thereon of the conduct of George III and Paine's *Common Sense*; note the purpose and effects of Declaration; the fundamental principles of government as contained in paragraph 2; the effects of (1) Washington's recovery of New Jersey, (2) Burgoyne's Surrender, (3) French Alliance, (4) Surrender of Cornwallis; list the difficult points in the treaty of peace and note how each one was settled or failed of settlement. Muzzey, pp. 127-144; 150-155. Appendix 1.

Electives:

A. Plans of union, 1696-1780. Make a chart of the various plans, date, causes, members, nature, and causes for dissolution. *American History Leaflet* no. 14.

B. Washington's trials with Army and Congress. Fiske, *American Revolution*, Vol. II, pp. 24-46; 62-72.

C. The French Alliance. Hart, Vol. II, pp. 574-590; Fiske, *American Revolution*, Vol. II, pp. 1-24.

D. The Declaration of Independence. Fiske, *American Revolution*, Vol. I, pp. 147-197.

## FROM REVOLUTION TO CIVIL WAR

Not all of these books are in the school library. The school librarian and one of the teachers obtain some of them from the public libraries.

Bibliography: Adams, Henry, *History of the United States*, Vol. IX; Bassett, *Short History of the United States*; Channing, *Jeffersonian System*; *History of the United States*, Vol. V; *Current History Magazine*, October, 1923; Dickens, *American Notes*; Hart, *Formation of the Union*; Jefferson, *The Writings of Thomas Jefferson*, Vol. III; MacDonald, *Jacksonian Democracy*; MacMaster, *History of the United States*, Vol. II; *Old South Leaflets*, no. 56; Sparks, *Men Who Made the Nation*.

Unit I: (Four days.) A. 1. Jefferson's administration: Muzzey, pp. 205-212. Compare Jefferson's political views with those of Washington and Adams. Describe the Louisiana Purchase, the cause for it, its importance, constitutionality, results.

2. The War of 1812: Muzzey, pp. 212-224. Prepare to discuss the cause and nature of the war between England and France, and its effects on American commerce. Show how we tried to meet our difficulties through (a) legislation, (b) diplomacy, (c) war. What was Clay's part in the war? Give our war aims, general character of war on land and sea, terms of the peace treaty. What was the effect of the New Orleans victory on (a) the war, (b) Jackson? What was the significance of the Hartford Convention?

B. Electives: 1. Jefferson's inaugural address. *The Writings*, Vol. III, pp. 317-322. (Note especially p. 321.) Whose support was Jefferson trying to gain? Are we following his political principles today?

2. Louisiana Purchase. MacMaster, Vol. II, 620-635, or Channing, ch. IV, pp. 50-51, 56-63, 67-69. Note historical background of purchase; decide whether France had the right to sell.

3. Burr conspiracy and hints at secession: Hart, pp. 188-190.

Unit II: (Three days.) A. Growth of nationalism: Muzzey, pp. 229-243. Show how the general change in spirit after 1815 manifested itself in (1) legislation, (2) political parties, (3) attitude towards a national bank, (4) Supreme Court decisions, (5) social and

economic conditions, (6) literature. How did we obtain possession of Florida? What events led to the recognition of the South American Republics and the issuance of the Monroe Doctrine? Give the substance and subsequent interpretations of the Monroe Doctrine.

B. Electives: 1. Social life in 1815: Adams, Vol. IX, ch. 10, pp. 219-242. What did the people of that time think of war? What became one of their chief characteristics? What does Adams think about their capabilities in national politics? How was their attitude toward religion changing? What spirit showed itself in politics?

2. Holy Alliance: MacMaster, Vol. V, pp. 30-41.

3. Monroe Doctrine, O. S. L. no. 56, pp. 13-14. Pick out the principles of doctrine: *C. H. Magazine*, pp. 102-113. Study what the doctrine is not: pp. 105-106. Who is to interpret the policy? p. 106. What does it not attempt to establish in South America?

Unit III: (Five days.) A. Growth of sectionalism: Muzzey, pp. 245-275. Describe westward migration of 1810-1820, showing how it developed sectional interests. Describe the "favorite sons" who were candidates for election in 1824, and the election itself. Give the leading characteristics of sections with divergent interests. How were those interests shown in the question of (1) internal improvements, (2) the tariff. Describe the tariffs of 1816, 1824, 1828, and the sectional attitudes toward them.

B. Electives:

1. Favorite sons. Sparks, ch. VIII-X.

Unit IV: (Four days.) A. Reign of Andrew Jackson: Muzzey, pp. 277-299. Describe Jackson and his political ideas before and after election. Outline the development of the nullification idea from the introduction of Foote's resolution to the action of South Carolina's convention. Note Jackson's toast, Clay's Compromise. Outline carefully the war on the bank, and its results. Describe the beginning of (1) spoils system, (2) national nominating conventions.

B. Electives: 1. Tariff and nullification: MacDonald, pp. 92-96, 98-104, 148-149, 156, 158-162, 164-167. Read carefully, paying particular attention to constitutional arguments in Haynes' and Webster's speeches.

2. Bank question and panic: MacDonald, pp. 112-113, 120, 130-233, 218, 222, 229, 231-235, 238-239. Note especially Jackson's

attitude toward Supreme Court, removal of deposits, expunging resolution, Benton's part in affair. Bassett, pp. 423, 432-433 on Specie Circular, and Panic of 1837.

3. The country in Jackson's day     Dickens, *American Notes*.

#### SLAVERY AND WESTERN EXPANSION

Bibliography: Bancroft, *History of the United States*, Vol. I; Burgess, *The Middle Period*; Elson, *History of the United States*; Garrison, *Westward Expansion*; Hoar, *Recollections*, Vol. I; MacMaster, *History of the People of the United States*; Vols. II and VII; Sherman, *Autobiography*, Vol. I.

Unit I: Beginning of the slavery issue. (Four days.) A. Muzzey, (old) pp. 303-325, (new) pp. 247-262. Outline the history of slavery in the new world to 1820. What was the Missouri Compromise? Describe the excitement aroused, the settlement of the question and its importance. Who were the abolitionists? What was the attitude of (1) the South, (2) the North, (3) Congress towards them? What was the importance of the years 1835-1837 in the history of slavery?

B. Electives: 1. Give attitude of Spain, Papacy, and England toward slavery in colonial days. Bancroft, Vol. I, pp. 124-126.

2. What was New England's share in the slave trade? Describe capture, disposal, and treatment of slaves. What was the attitude of Quakers and Methodists towards slavery during the Revolutionary period? MacMaster, Vol. II, pp. 15-21.

3. Missouri Compromise. What was the Talmadge Amendment? What was its fate in the Senate? State constitutional questions involved in the Missouri issue. Give final form of compromise. What were the results? Elson, pp. 456-462.

4. Abolitionists. Burgess, ch. XI.

Unit II: Westward expansion. (Four days.) A. Muzzey, (old) pp. 328-349, (new) pp. 264-280. What was the attitude of the East to the expansion of the West? The connection of slavery with the growth of the West? What were the claims to Oregon? Describe the settlement of Texas, the winning of its independence, its government. Outline the history of its annexation, and that of the annexation of Oregon.

B. Electives: 1. Election of 1848: What does Sherman say about Taylor? What does Hoar say about Taylor? What, according to Hoar, is the origin of the Republican party? Hoar, Vol. I, pp. 146-153; Sherman, Vol. I, pp. 92-93.

2. The Underground Railway: MacMaster, Vol. VII, pp. 240-257.

Unit III: Review. (Four days.) Read over your notes for the term, and make a list of important dates, persons, and events in our early history. Group these under four or five big headings that show the trend of affairs.

## 11 B ADVANCED AMERICAN HISTORY

Each teacher used her own method in her assignments. There was no attempt to make the assignments uniform except in certain practical details.

### THE RECONSTRUCTION

Preface: The attempt to overthrow the nation had failed; the Union was saved. But peace, as well as war, has its problems. What were these difficulties? How were they met?

Unit I: The political reconstruction of the South. (Three days and conference.)

Discussion: position of the seceded states; comparison of the plans for reconstruction proposed by Lincoln and Johnson on one hand, and Congress on the other; the thirteenth, fourteenth, and fifteenth amendments to the Constitution. (Also, review the Emancipation Proclamation.)

Problems:

A. What is meant by the "crime of reconstruction"? What are your views in the matter?

B. What did the negro gain by each of the amendments made during this period? How was the South affected by each?

## C. What were the "black codes"? By whom, when, and why were they passed?

## D. What attempts did the national government make to give the negro civil and economic protection?

## References:

Required: Thirteenth, fourteenth, fifteenth amendments in any American history book and *one* of the following:

Beard, *History of U. S.*, pp. 370-373, 379, 380.

Muzzey, *American History*, pp. 476-486 (very helpful).

Fite, *History of the U. S.*, pp. 411-416.

## Additional:

Hart, *American History Told by Contemporaries*, Vol. IV, Conditions in the South from various view points, pp. 445-458; Amendments of this period, pp. 465-467; 482-485; 492-495.

Channing, *Student History of the U. S.*, pp. 504-509; 515-517, 527.

Fish, *American Development*, pp. 407-414.

*Great Epochs in American History*, Vol. IX., pp. 3-16, 59-70, 188-196.

Unit II: Restoration of white supremacy. (Four days and conference.)

Discussion: Why the whites had to struggle to regain their political rights; the four methods used; the effectiveness of each; the political effect of this struggle on the South.

## Problems:

A. Compare the purpose of the K. K. K. of 1860 with that of today.

B. Do the new state constitutions of the South violate the fifteenth amendment? Why?

C. Can representation of Southern states in Congress be reduced today? Why? Account for the present attitude on the subject.

## References:

Required: Beard, pp. 379, 380, 382, 389. Refer to *Readers' Guide* for K. K. K. of today.

## Additional:

Fite, pp. 416, 419, 421-422.

Hart, *American History Told by Contemporaries*, Vol. IV, K. K. K. and the carpet-bag governments, pp. 495-500.

Optional: Suggested reading on the period for extra credit:

Dixon, *Leopard Spots*, and *The Clansman*. (Southern viewpoint.)

T. N. Page, *Red Rock*. (Unbiased viewpoint.)

Booker T. Washington, *Up from Slavery*; *Working with the Hands*.

## RECENT AMERICAN HISTORY

Bibliography: Same as for February and March; also Hart, *Actual Government*; Hughes, *Problems of American Democracy*; Robinson and Beard, *The Development of Modern Europe*; Vol. II; Green, *Short History of the English People*; *Great Epochs in American History*, Vol. X; Barnard and Evans, *Citizenship in Philadelphia*; Bliss, *New Encyclopedia of Social Reform*; *American Nations Series*; F. A. Ogg, *National Progress*; Ogg, *Social Progress in Contemporary Europe*; Humphrey, *Women in American History*; Morris, *Heroes of Progress in America*.

Foreword: As the United States was developing with such great strides economically, a corresponding political development took place.

*First Week: The Republican Party*

Discussion: Need for parties; control exercised by the Republican Party after the Civil War; periodic rise of movements for party reform; comparison with the Democratic Party on such principles, as tariff, big business, etc.

Problems:

A. Why are political parties so powerful in the United States?

B. Has the rise of small parties caused the older parties to become more or less conservative in their platforms?

C. What is the third party movement? Has it proved powerful or not?

## D. Compare our two-party government with Europe's bloc system.

References:

Required: Beard, pp. 412 to 422, 451; 462 to 465; 520; 530 to 534.

Additional: Get material from your teacher concerning the election of 1924 (powers and principles of Republican, Democratic, Progressive Parties).

Beard, *Government and Politics*, pp. 99-103; Muzzey, follow index on Republican Party, beginning p. 493.

Hart, pp. 87 to 112.

Robinson and Beard, pp. 172 to 175; p. 193.

*Second Week: Tariff*

Discussion: Definition; tariff history of the United States; arguments for and against a protective tariff.

Problems:

A. Note which party sponsored each of the important tariffs since the Civil War. Have the different parties been consistent in their attitude?

##B. Account for the attitude of the East, South, West, on the tariff.

##C. Is England's policy changing? Compare our attitude toward the tariff with England's.

References:

Required: Beard, follow index; Hughes, pp. 262 to 266; see teacher for 1920 tariff.

Additional: Fite, follow index; Muzzey, follow index; Bogart, pp. 446 to 449; Green, p. 841; Robinson and Beard, pp. 213 to 218; Fish, follow index; *Great Epochs in American History*, Vol. X, pp. 88 to 95 (Wilson Tariff).

Not required: The money question.

Discussion: Kinds of money in the United States, banking (national and state banks), credit and panics; Federal Reserve System.

Problems:

A. Why did the United States create national banks in the Civil War? How do they differ from state banks? Did they serve their purpose?

B. In what way can the Federal Reserve System help to prevent panics? Can you give an example of an occasion on which it did so?

##C. What is meant by "cheap money, free silver, 16 to 1"?

##D. What effect did the discovery of silver in Nevada and gold in Alaska have on the value of money?

References:

Required: Hughes, pp. 240 to 244; 246 to 248; Fite, p. 388; Muzzey, p. 453 (footnote).

Additional: Beard, pp. 455 to 458; Fite, pp. 428 to 429; 466; 468 to 469.

*Third Week: (a) Reform of the Civil Service and (b) Enfranchisement of Women*

(a) Reform of the Civil Service.

Discussion: Definition and history of the Civil Service; evils of the spoils system; Civil Service Commission.

Problems:

A. Do you think the idea that "to the victor belong the spoils" can produce an efficient government service? Has the Civil Service Reform done away with the "invisible government"?

## B. Compare our Philadelphia and the national Civil Service.

References:

Required: Beard, pp. 244; 250; 418; 536 to 540.

Additional: Barnard and Evans, pp. 340 to 354; Muzzey, follow index; Fite, follow index.

(b) Enfranchisement of women:

Discussion: Political and economic position of women in colonial times; causes of changing status; struggle for suffrage.

Problems:

A. How did the changed economic position of women affect their need for suffrage?

B. Who are the two most famous pioneers of the movement for women's rights in the educational and political fields?

C. Compare the position of women in the United States with that of the women in England, Norway, and France.

References:

Required: Beard, pp. 554 to 568. Article XIX of the Constitution.

Additional: Fite, p. 527; *American Nation Series*; F. A. Ogg, *National Progress*, pp. 152 to 156, and 382; Ogg, *Social Progress*, etc., pp. 172, 173; Bliss, pp. 294 to 305; Morris, pp. 219, etc., and p. 309, etc.; Humphrey, pp. 189 to 206.

## SCIENCE

- I. Biology: first to fourth year, to show sequence of topics
- II. Physics: fourth year
- III. Chemistry: second year

### 9 A SCIENCE

You will be expected to complete the following by Friday, May 29. The directions and assignments you will find in a book called *Science for Boys and Girls*, by M. L. Nichols.

I. Plant neighbors: flowers. Examine the flowers in the laboratory, following the directions on page 6. Make drawings according to your teacher's directions. Answer as many questions on page 22 as you can on a sheet of paper, according to your teacher's directions.

Reference: chs. II, IV, and V.

II. Plant neighbors: fruits and seeds. Examine the fruits and seeds in the laboratory, following the directions on pages 60, 64. Answer the questions according to your teacher's directions. Examine a bean, following the directions on page 3. (1) Make a drawing. Examine a grain of corn, following the directions on page 3. (2) Make drawings.

Reference: pages 71-80.

III. Plant neighbors: seedlings. Examine the seedlings in the laboratory. See page 3, (3). Make drawings according to your teacher's directions. Observe the results of the experiments described on pages 3, 4, and 5. Write the experiments according to your teacher's directions.

Reference: pages 7-14.

IV. Soils. Examine the different kinds of soil according to the directions on page 3 (7). Write an account of your observations according to your teacher's directions. Observe the results of the experiments described on page 4 (8, 9, and 10). Write the experiments according to your teacher's directions.

Reference: Read pages 14 to 17. Try to answer the questions on pages 22 and 23. They will be discussed in class.

V. Optional work:

- A. Identification of twelve spring flowers.
- B. Distribution of fruits and seeds other than those in the assignment.
- C. Report on seedlings other than those in the assignment.
- D. 1. The formation of soil.  
2. An explanation of why forest soil is fertile.

## 9 B SCIENCE

### INSECTS

You will be expected to complete the following by Friday, October 3. The directions and assignments you will find in a book called *Science for Boys and Girls*, by M. L. Nichols.

I. Insect neighbors: moths and butterflies. Examine the moths and butterflies in the laboratory. Answer as many of the questions on page 81 (2) as you can. Write the answers on a sheet of paper according to your teacher's directions.

Observe the caterpillars in the laboratory. Answer as many of the questions on page 81, (3) as you can. Write the answers on a sheet of paper.

Reference: chs. VIII and IX.

II. Insect neighbors: grasshoppers. Observe the grasshoppers in the laboratory according to the directions in *Elementary Biology*, Peabody and Hunt, page 22, para. A (1, 2, 3); page 22, B (1, 2); page 23, (4, 5, 6); page 24 (9), also para. C (1 and 2); page 25 (6); page 26, para. D (3).

Reference: *Science for Boys and Girls*, ch. X.

III. Insect neighbors: other insects. Examine the insects in the laboratory. Write a brief description of each according to your teacher's directions and tell how you think they might either do us harm or do us good.

Reference: *Science for Boys and Girls*, ch. XI.

IV. Optional work: With your teacher's permission, you may work on one or more of the following topics:

- A. Description and economic importance of the roach.

B. Description and habits of cricket, praying mantis, and walking stick.

C. Draw the mouth parts of the locust. Tell how each part moves and give its use.

D. The Rocky Mountain locust.

E. The appearance and habits of any insect not mentioned in the assignment.

#### FISH

Observe the living and preserved fish, following the directions in *Elementary Biology*, Peabody and Hunt, according to the following assignments:

##### *First week*

I. Observe the fish according to directions on page 122, para. 91, parts 1 to 4. Write the answers to the questions on laboratory paper. Study para. 90.

II. Sense organs: Observe according to directions on page 136, para. 102. On laboratory paper make a list of sense organs with their location and any facts that you learn about them from observation or from para. 102 or 103.

III. How the fish swims: On laboratory paper answer questions in para. 94, parts 1 to 9. Study para. 95.

##### *Second week*

I. Draw a living goldfish on a separate unlined sheet of laboratory paper and label according to directions in para. 91, part 5.

II. How the fish eats: On laboratory paper answer the questions on page 128, para. 96, parts 1 and 2. Study para. 97 and 98.

##### *Third week*

I. How the fish breathes: On laboratory paper answer the questions on page 132, para. 100, parts 1 to 9, omitting part 3. Study para. 101.

II. Draw the gill on a separate unlined sheet of laboratory paper. Study para. 99, 104, 105.

## VERTEBRATES AND INVERTEBRATES

*Fourth week*

I. Examine the specimens and pictures in the laboratory. Answer the questions on page 146 of *Science for Boys and Girls*. Study pages 147 to 166 in *Science for Boys and Girls*.

II. Socialized recitation on the whole contract.

III. *Optional topics:*

With your teacher's permission, you may work on one or more of the following topics:

A. The codfish industry.

B. The salmon industry.

C. Uses of fish as food and fertilizer.

D. What oil-burning steamers are doing to our fish.

E. The life history of the frog.

F. Are all snakes harmful?

G. The work of a fish hatchery — detailed discussion.

H. Marketable fish products, preparation and use.

I. Economic importance of five invertebrates not previously discussed.

## 10 A SCIENCE

I. Wood: individual observations. A. Observe at home, at school, and elsewhere, as many uses as you can for wood.

B. Examine carefully furniture and woodwork. Has the wood of the desks and seats the same color and appearance as that of the floor and window frames? Do you notice any difference in the pattern or "grain" of the wood? Examine the specimens of wood in the laboratory. Make drawings to show at least two patterns that are decidedly different.

C. Examine cross and longitudinal sections of a corn stalk. How do they differ from the sections you have already examined? Make drawings to show the differences.

D. Examine cross and longitudinal sections of stems or tree trunks. Make drawings.

E. Examine thin sections of stems under the microscope. Can you tell of what the stem is composed? Make drawings according to your teacher's directions.

F. Compare cross sections of stems differing in age. What is the difference?

References: *Civic Biology*, Hunter, pp. 97-102 (top), 105-116. After reading the references, label your drawings.

II. Wood: uses and manufacture: forestry. The following topics will be discussed in conference. Be prepared to take part in the discussion as a result of your observation and reading:

- A. Uses of wood.
- B. The structure of a dicotyledonous stem.
- C. The structure of a monocotyledonous stem.
- D. The growth of stems.
- E. The functions of the stem and how they are performed.
- F. Methods of cutting trees and the patterns produced.
- G. The value and care of trees in city and country.
- H. The prevention of forest fires.

III. Trees. A. By the end of the month, you will be expected to hand in to your teacher a collection of leaves from a number of different trees (at least 10). Begin early in the month to gather them. Compare the leaves with the figures in the books mentioned below, also with the specimens, pictures, and booklets in the laboratory. Name as many as you can. Press the leaves between sheets of newspaper under heavy weights (several large books will do). Change the paper several times. When the leaves are dry, fasten them with strips of paper or court plaster in your notebooks.

B. Under or opposite each leaf in your notebook, write the name of the tree from which it was taken, a brief description of its appearance, including its size, bark, manner of branching, where it grows, and anything else that seems to you of interest.

C. Describe very briefly any insects found injuring the leaves or bark of the tree.

References: Apgar, *Trees of the Northern United States*; Levison, *Study of Trees*; Emerson and Weed, *Our Trees and How to Know Them*; Keeler, *Our Native Trees*.

IV. Optional topics:

- A. An account of your excursions to gather leaves.
- B. Enemies and friends of trees.
- C. Tree diseases.

*D.* A collection of pictures illustrating any portion of the month's work.

*E.* Cone-bearing trees; their sources and uses.

*F.* Bamboo and its uses.

*G.* Cabinet woods; their sources and uses

*H.* Experiments to illustrate the functions of the stem.

*I.* A comparison of primitive and modern uses of wood.

## 10 B SCIENCE

*I.* Preservation of foods — from molds. *A.* What happens to a piece of moist bread when it is kept in a warm, dark place? Put several layers of paper in the bottom of a rather deep saucer. Moisten each layer with water and place on top of it a piece of bread or a piece of cheese. Cover with a glass tumbler after having sprinkled the bread or cheese with a little dust. Then place the saucer for a week in a dark and rather warm spot. Examine it daily and add a little water if it seems to be getting dry. Record your observations daily.

*B.* At the end of the week, bring these observations to class. Break your piece of bread or cheese in halves and examine the broken edge with a hand lens. Make a simple drawing which will show exactly what you see. When this drawing is complete, hand it in. It will be returned to you for labeling.

*C.* How do molds reproduce? To answer this question, repeat the above experiment in the laboratory. Make the following difference in your method. Instead of putting dust on the bread or cheese, touch the finger tips several times first to the moldy bread or cheese and then to the fresh piece.

*D.* Will mold grow in the sunlight? Repeat the experiment, putting the saucer in the sunlight instead of in the dark.

*E.* Do molds require moisture for growth? To answer this, repeat the experiment with a bit of bread which has been thoroughly dried in the oven. Give it no moisture while it is in the saucer. Keep it in the dark, warm spot.

*II.* Preservation of foods — from bacteria. *A.* What happens to meat or eggs which are kept in a moist, warm place? In a test tube place either a bit of raw meat or some white of egg. Add to the tube a little water and leave it for a few days in a warm place. Plug

the mouth of the tube with raw cotton. At the end of the time examine the contents of the tubes. Has the color or odor changed? If so, how? Why?

B. Will meat spoil in a cold place? Place a similar tube containing meat in a cold refrigerator. Examine in a similar way. Are the results the same or different? Explain why.

C. Will dried beef spoil? Dry the meat thoroughly in the tube, over a flame, before plugging with cotton. Examine as before. What are the results? Explain.

D. Will boiled beef spoil? Repeat the experiment except that the meat is to be boiled in water before the tube is plugged. Give an explanation of the results.

III. Preservation of foods — from injurious insects. From observation at home and in the laboratory, name and describe as many insects as you can that injure food. How do insects injure plants? What methods of control are employed by man?

Bibliography: *Chemistry in the Home*, Weed; *Introductory Science*, Clark; *Agronomy*, Clute; *Agriculture for Beginners*, Burkett, Stevens and Hill.

#### IV. Optional topics:

- A. Chemical preservatives for foods.
- B. By-products of the packing houses.
- C. Testing milk for the presence of formaldehyde.
- D. Testing milk for the presence of borax.
- E. Smoking ham.
- F. Preservation through pickling.
- G. Preservation through salting.
- H. Canning meat.
- I. Ptomaine poisoning.
- J. Preserving fruit.

## 11 A SCIENCE

### HEALTH AND SANITATION

#### I. Bureaus of Health.

- A. What is a Board of Health, and why do we need one?
- B. Who is the director of the Philadelphia Board of Health?
- C. Make a list of the duties of the Board of Health.

D. Why is it necessary to have a State Board of Health? What are its duties?

E. How does the Federal Bureau of Health differ from the city and the state boards? What are its duties?

Write answers to the above questions in your notebooks. Add anything else of interest, clippings, pictures, etc.

II. Food preservation. Review 10 B work on this topic. Refer to Weed's *Chemistry*, ch. 24.

A. Why must foods be preserved?

B. What types of foods must be preserved?

C. Name five methods of preservation in common use, and tell for what goods each is used.

D. Tell how each method in "C" affects bacteria in the food.

E. How does the composition of the food affect the method needed to preserve it?

F. What foods are especially watched by the food inspectors? Why?

III. Nature of yeasts, molds, and bacteria. General reference: Bergen and Caldwell, *Practical Botany*. Use the index.

A. Review 10 B work on yeasts. Be ready to discuss their nature, form, method of reproduction. What substances form when yeast grows? This topic need not be written in your notebook.

B. Molds.

1. What foods are attacked by molds? Describe the appearance of the growth of mold upon bread, jam, etc. What damage do molds do?

2. What is the difference between green mold and black mold? (See pictures in Bergen and Caldwell.)

3. Of what use are molds?

C. Nature of bacteria:

1. What are bacteria?

2. Discuss the size, shape, and structure of bacteria.

3. Do bacteria move about? How?

4. Upon what food materials do bacteria thrive best?

5. Tell how bacteria reproduce.

IV. Laboratory exercises and demonstrations. A. Broth for bacteria: Write a description of the demonstration given in the laboratory. Broth will be prepared, stiffened with agar, tubed, and

sterilized. Include in your description a definition of all the new words: *agar*, *peptone*, *absolute*, *sterilization*, etc.

B. Examine and diagram the Arnold sterilizer. Tell how it is used. Why do we sterilize our broth three times, on three successive days?

C. Treat the culture tube given you as directed in class. Return it to the laboratory, and watch it and the tubes of the other students for several days. Be able to answer the following questions:

1. In what common substances have you found bacteria?
2. Describe the appearance of the water cultures. What is your conclusion?
3. What is the appearance of the milk cultures? What is your conclusion about bacteria and milk? Do you think these bacteria are harmful? Explain.
4. Why have you found little or no growth on the vinegar cultures?
5. Does dust carry bacteria? Compare the "vacuum cleaner" plate with the "broom" plate. Examine the advertisement mounted on cardboard. Is it a scientific "ad"? Explain. Find similar pictures in magazines and mount with your notes (optional).
6. Does our experiment make clear why books on hygiene tell us to wash our hands before eating?

Are "looks" the only reason why we should not bite finger nails?

D. Demonstration experiment: What foods do yeasts prefer?

Record the experiment as usual. Then answer these questions:

1. Why should there be any difference in the way the yeast grew in the several tubes?
2. How does this experiment explain the way "canned" and "preserved" fruits keep?
3. When yeast grows in any substance, we say the process of —— is going on, —— and —— form when yeast grows. What becomes of these?

4. Has temperature any effect on the growth of yeast? Explain.

V. Relation of bacteria to decay. Read Bergen and Caldwell. Write a short account of this relation.

VI. Bacteria and the soil. Read *Chemistry of Common Things*; Brownlee, et alia., para. 503, 513, 514, 515.

A. Name ten elements absolutely essential to plant life. How do the plants get these elements?

- B. Which elements must be replenished by fertilizers?  
 C. Why is nitrogen an important element?  
 D. How may nitrogen be made to combine with oxygen?  
 E. What are "nitrogen-fixing bacteria," and how do they differ from all other plants? Under what conditions will these bacteria thrive? What is meant by "inoculated soil"?

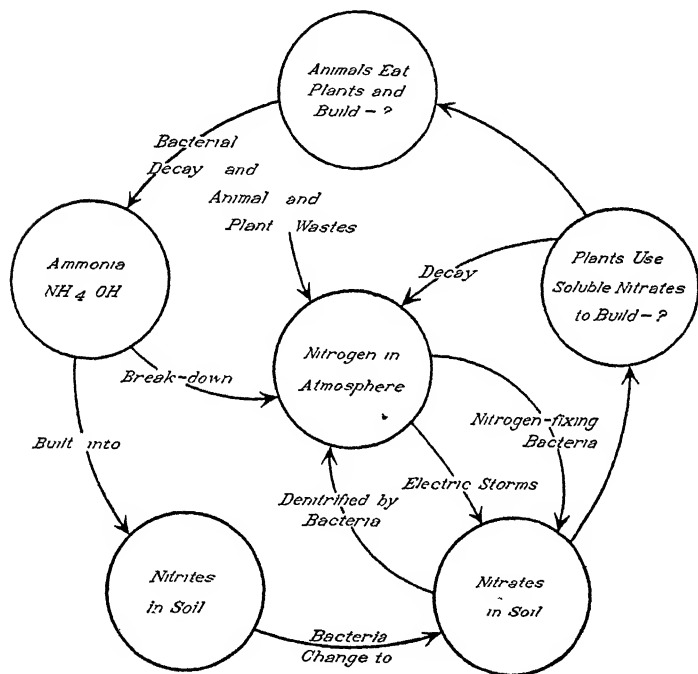


FIG. 6

F. What is meant by "nitrification"? What kind of bacteria take part in the process? What products form and what becomes of them?

#### VI. The nitrogen cycle.

- A. How does nitrogen travel from the air to plants and animals?  
 B. How does nitrogen get back again to the air?

## BACTERIA AND DISEASE

Bibliography: Bergen and Caldwell, *Botany*; Lippitt, *Personal Hygiene*; Blount, *Health*.

I. Effect of bacteria on our bodies. A. How do our bodies furnish a favorable environment for bacteria? (Recall the conditions which are favorable for the growth of bacteria.)

B. How may bacteria enter our bodies? (Lippitt, p. 132.)

C. In what ways may bacteria poison our bodies? (B. and C., para. 158.)

D. What are the general symptoms of disease? (Recall our feelings when we begin to feel that we are getting a cold, or some other illness.)

II. Diagnosis of disease. A. Specific symptoms.

1. Why does the doctor sometimes wait for twenty-four hours or more before he tells us what disease is attacking the body?

2. Give examples of specific symptoms of diseases, as, "spots" of measles, etc.

B. Scientific diagnosis by means of blood tests, pus tests, etc. (class discussion).

III. Prevention and cure of disease. A. Our bodies resist disease by means of:

1. Skin and mucous membranes

2. Respiratory tract

3. Digestive tract

4. Kidney and intestinal excretion

5. Blood supply (chemical composition, red cells, white cells, antibodies, etc.) (There will be a class discussion of these topics.)

B. Artificial immunity may be built up by:

1. Vaccinations and inoculations

2. Anti-toxins

3. Disease itself: ex. measles

(There will be a class discussion of these topics.)

C. General health: Has hygiene anything to do with the resistive powers of the body? Explain.

IV. Communicable diseases. We shall study only a few of the diseases which have done most damage to mankind.

A. Tuberculosis — "consumption," B. and C., para. 160.

1. Cause — the tuberculosis bacillus. How does it enter the body?

2. How does the germ grow in the body?

3. Can the germ of tuberculosis live and grow outside our bodies?

Explain.

4. Can tuberculosis be inherited? Explain.

5. What remedies and cures are used?

6. What must be done to prevent the spread of tuberculosis?

7. How is tuberculosis related to colds?

8. Why is it usually a disease of cities?

9. Tell about the economic and social loss due to tuberculosis.

*B. Pneumonia:*

1. Cause — pneumococcus (several varieties).

2. How do the germs grow in the lungs? Compare with tuberculosis in this respect.

3. Is pneumonia slow or rapid in its development. Compare with tuberculosis.

4. How is pneumonia related to colds? Compare with tuberculosis.

5. How may pneumonia be prevented? Cured?

*C. Colds.*

1. Cause — micrococci of catarrh, influenza bacilli.

2. How do the germs enter the body?

3. What are the general effects of colds on the body? Compare with tuberculosis and pneumonia.

4. Give several reasons why colds are spread so easily.

5. How may we prevent colds? How cure them? What is the value of inoculation?

*D. Diphtheria:* optional topic for *G* and *E* girls. See teacher for references.

1. What causes diphtheria?

2. What is meant by anti-toxin, and how is it obtained?

3. What is a diphtheria carrier?

*E. Typhoid fever.* See Lippitt.

1. Cause — bacillus typhosis.

2. How does it enter the body?

3. How does the germ grow in the body?

4. What is meant by a typhoid carrier?

5. What is meant by vaccination for typhoid? How long will the immunity last?

F. Smallpox. See Lippitt.

1. Cause — Germ has never been found.

2. Effects on body.

3. Prevention — vaccination. What material is used? What is the result of vaccination?

## 12 A SCIENCE (NORMAL)

### LIVING ORGANISMS

I. Structure and functions. You have just learned something about the structure and composition of the earth. This month we shall learn something about the organisms that live on the earth.

A. Think of the functions that you know to be possessed by both plants and animals. Make a list of these.

B. From observation of the specimens and pictures and from what you know of their functions make a list of the ways in which most plants resemble each other.

C. Make a similar list for animals.

D. Make labeled diagrams to show the structure of three different kinds of plants and three different kinds of animals.

Reference: *Evolution and Animal life*, Jordan and Kellogg, pp. 32-37 (bottom).

II. Microscopic structure. What is the structure of the separate organs of plants and animals. To answer this question examine under the microscope the following tissues: wood, pith, epithelium, muscle, connective tissue, muscle, gland, egg. Can you see minute subdivisions or cells? Is there any similarity between the plant and animal cells? If so, what? Are the cells of different organs of plants and animals similar or different? If you observe any difference, make drawings sufficiently large to show these differences.

Reference: *Evolution and Animal Life*, pp. 23-32 (top).

III. Microscopic organisms. A. Mount a few filaments of spirogyra in a drop of water on a glass slide under a cover glass. Examine first with low power of the microscope. Make a drawing of a single filament to show clearly what you see. Now examine with a high power. What more can you see? Make a drawing. Examine

also a filament which has been stained with iodine. Is there any difference in the appearance?

B. Examine yeast and bacteria under the microscope. Write a description, comparing them with spirogyra as to structure and function.

C. Examine under a low power of the microscope a drop of stagnant water from the jar in the laboratory. Do you see anything moving? If not, repeat with another drop until you do. Describe the moving object as to color, size, and shape. Are the two ends alike or different? Can you distinguish which end goes first during the movement? Describe the character of the movement. Is it altered on meeting an obstacle?

D. Examine under the high power a drop to which ether has been added. Make a drawing large enough to show clearly what you now see as to shape, contents, and covering of the body. Below the drawing write a description of your observations.

References: *Botany*, Atkinson, pp. 231-239 (middle); pp. 266-271. *Animal Biology*, Peabody and Hunt, pp. 167-174.

#### IV. Optional topics.

- A. The cells of the blood and their functions.
- B. Functions of muscles.
- C. Nerve cells and their functions.
- D. How gland cells do their work.

#### THEORY CONCERNING THE ORIGIN OF DIFFERENCES IN ORGANISMS

I. Artificial selection. Examine the pictures of animals. Make lists of the differences in the breeds (at least three differences for each kind of animal). State what appears to you to be the value of these differences to man. *Evolution and Animal Life*, pp. 82-90. Topic: Luther Burbank and His Work (to be assigned).

II. Natural selection. Examine the pictures and specimens of animals and plants. Select at least three animals and three plants for the purpose of showing by means of diagrams, drawings, or descriptions how their characteristics adapt them to their manner of life. *Evolution and Animal Life*, pp. 57-67. Topic: The Evolution of Sexual Characters (to be assigned).

Be prepared to discuss the following topics in class:

- A. Adaptation.

- B. Struggle for existence.
- C. Survival of the fittest.
- D. Comparison of artificial and natural selection.

## 12 B SCIENCE (NORMAL)

### BIOLOGY

I. Classification of plants. A. Review 9 A work on the structure and function of flowers, fertilization, and cross fertilization, seeds and their growth, 10 A work on cereals and sugar-cane, molds, yeast, and bacteria, 11 A work on bacteria in relation to disease, 12 A work on the differences between plants and animals. These topics will be discussed in conference.

B. Examine the specimens and pictures in the laboratory. From what you observe and from what you know of their functions and habits, divide the plants into as many groups as you think their similarities and differences require. Before leaving the laboratory give to your teacher on a sheet of paper the classifications you have made, together with your reasons for so grouping the plants.

II. Classification of animals. A. Review 9 B work on insects, fish, vertebrates, and invertebrates, and reproduction in animals, 10 B work on insects, 12 A work on the cells of animals and on natural and artificial selection. These topics will be discussed in conference.

B. Examine the pictures and specimens of vertebrates in the laboratory. From what you observe and from what you already know, classify them into groups according to their resemblances and differences. Hand in your classification with reasons before leaving the laboratory.

C. Examine the pictures and specimens of invertebrates in the laboratory and classify as before.

III. Variation and heredity. A. Examine a handful of peas or beans. Classify them according to size and construct a curve according to directions to illustrate their variation in size.

Reference: *Evolution and Animal Life*, pp. 163 to top of 175.

B. Be prepared to discuss the following topics in class:

1. The physical basis of heredity.
2. The distinction between homology and analogy.
3. Atavism.

4. Explanation of the existence of homology and analogy.
5. Prenatal influence.
6. Hermaphroditism.
7. Parthenogenesis.

C. Select a characteristic prominent in your family, for example, stature (great or small), color of eyes or hair, extra fingers or toes, color blindness. Get all the information you can from parents and relatives concerning the inheritance of this characteristic. Make a chart similar to that described in class to show the method of inheritance. Examine the pictures in the laboratory.

Reference: *Evolution and Animal Life*, pp. 451-459.

IV. Excursion. A. Gather as many different kinds of flowers as you can find. Notice the kind of places in which they grow. Pick them with long stems, but do not pull them up by the roots. Place them slightly moistened in a box of pasteboard or tin. Compare stems, leaves, and flowers of the different plants and be able to give a description in conference of what you have observed.

B. Notice any insects, birds, or other animals that may be visible. Be able to give in conference brief descriptions of their appearance and habits.

References: Blanchan, *Nature's Garden, Bird Neighbors*; Howard, *The Insect Book*; Comstock, *Manual for the Study of Insects, Insect Life*; Comstock, *Nature Study*; Holland, *The Moth Book, The Butterfly Book*; Stone and Cram, *American Animals*.

V. Optional topics:

- A. Buttercups and their relatives.
- B. The rose family.
- C. The pea and bean family.
- D. The mustard family.
- E. The parsley family.
- F. The potato and its relatives.
- G. The grasses.
- H. Lilies and arums.
- I. Trees, green and evergreen.
- J. Seaweeds and water-weeds.
- K. Mushrooms and toadstools.
- L. Animals that live in the sea.
- M. Insect friends and enemies.

- N. Relatives of insects.
- O. Any group of vertebrates.
- P. Heredity and social welfare.

## 12 A SCIENCE (NORMAL)

### PHYSICS: LIGHT

I. Reflection. A. Review of B work on reflection. How is light reflected from a plane mirror? Support the mirror in a perpendicular position on the table against a book, setting it upon a straight line ruled across a sheet of paper not far from its upper margin. Place a pin in an upright position in front of the mirror and not far from the left-hand margin of the paper. Now place the eye level with the surface of the table near the lower right-hand corner of the paper. Put two pins in an upright position so that they appear to be in a straight line with the image of the pin in the mirror. Remove the mirror and draw a line passing through the positions occupied by the two pins just mentioned and intersecting the line on which the mirror rested. Draw a third line connecting this point of intersection with the position of the pin near the left-hand margin. At the point of intersection erect a perpendicular to the line of the mirror. Compare the angles formed by these lines.

Reference: Gorton, *Physics*, para. 282 to 285.

B. How are parallel rays reflected from a concave mirror? Hold a concave mirror so that the rays from the sun strike it parallel to the principal axis. Move a card back and forth in front of the mirror so that it may receive the reflected light. What do you see on the card? Construct a diagram applying the law of reflection illustrated by the previous experiment and explaining the effect observed in this experiment.

C. How are parallel rays reflected from a convex mirror? Repeat the experiment, using instead of a concave a convex mirror.

Reference: Gorton, para. 290 to 291.

II. Refraction. A. How is light refracted through glass with parallel surfaces? Draw a heavy black line on a piece of white paper. Place the glass transversely across the line and move your head from side to side above it. How does the appearance of the line change?

B. How is light refracted through glass with surfaces not parallel?

Place a prism in an upright position on a piece of paper. Place four pins, two on either side of the prism so that when your eye is on a level with the table and looking through the prism, all four pins seem to be in the same straight line. Draw a line around the margins of the prism and also a line passing through the positions of the pins and intersecting the lines of the prism.

*C.* How are parallel rays refracted through a biconvex lens? Hold a biconvex lens directly in the path of the sun's rays. Move a card back and forth on the opposite side of the lens. What do you see? Construct a diagram applying the information gained in the previous experiments and explaining the effect observed in this experiment.

*D.* How are parallel rays refracted through a biconcave lens? Repeat the experiment, using a biconcave lens.

*E.* What happens when parallel rays pass through a prism? Hold a prism directly in the path of the sun's rays. On the opposite side of the prism place a white screen. Rotate the prism on its axis. What do you see on the screen? Hold differently colored strips of paper or cloth in the screen where the refracted light falls. What do you see?

Reference: Gorton, para. 297, 298, 306 to 309, 327 to 333.

III. Images formed by mirror and lenses. *A.* Compare the images seen in plane, concave, and convex mirrors as to size and apparent distance behind the mirror. Make diagrams explaining the cause of the observed differences.

*B.* Compare the images of objects looked at through biconvex and biconcave lenses. Make diagrams explaining the causes of the observed differences.

*C.* In a darkened room place a lighted candle in front of a concave mirror. On the other side of the candle place a white screen. Move the candle back and forth between the mirror and the screen. What do you see on the screen? Make a diagram to explain what you see.

*D.* Repeat the experiment, using a convex mirror.

*E.* In a darkened room place a biconvex lens between a lighted candle and a white screen. Move the lens back and forth between the candle and the screen. What do you see? Make a diagram.

*F.* Repeat the experiment, using a biconcave lens.

*G.* Try to get images of distant objects on a white screen by the use, first of a mirror, and second of a lens.

Reference: Gorton, para. 292 to 295; 310 to 324.

IV. Optional topics:

- A. The periscope.
- B. The camera.
- C. The microscope.
- D. Telescopes.
- E. The stereoscope.
- F. The stereopticon and moving pictures.
- G. The spectroscope.
- H. Rainbows.
- I. Mixing colors.
- J. The critical angle.

## 10 B SCIENCE

### CHEMISTRY

I. Sugar; kinds and sources. A. The following questions will be discussed in conference: (1) From what plants is sugar obtained? (2) In what part of the plant is the sugar most abundant? (3) In what ways do you think it would be possible to extract the sugar from the plant? (4) In what parts of the United States are the different plants found? (5) With what different kinds of sugar are you familiar? (6) How are they used?

B. Supplement what you already know or have learned from the discussion by an examination of the pictures, specimens, and samples of different kinds of sugar.

C. Examine a few grains of sugar under the microscope. Make a drawing.

Reference: *Chemistry of the Home*, Weed, pp. 225-226 (top), 230 (bottom), 232.

D. Write an account of what you have learned under the headings (1) composition, (2) kinds, (3) sources.

E. (Optional). (1) A comparison of the taste and solubility of sucrose and glucose. (2) The effect of iodine on starch, dextrin, and sugars. Consult your teacher for directions.

II. Manufacture of sugar. A. Review the work of 9 A on physical and chemical change, filtration, forms of carbon, crystallization,

evaporation, and boiling. This work will be discussed in conference. The following questions will also be considered: (1) What other substances besides sugar might the sap of plants contain? (2) How can these substances be removed from the juice? (3) By what method can the grains of sugar examined under the microscope be obtained from the juice?

B. In order to understand the processes for manufacturing sugar, the following questions should be answered by experiment. After seeing the results, write an account of each experiment.

1. How can the presence of different sugars be tested? To a solution of glucose add Fehling's solution and boil. Allow to stand and cool. Is there any change in color? Repeat the experiment with sucrose.

2. Can one kind of sugar be changed to another? (a) Half fill a test tube with a solution of sucrose. Add a few drops of hydrochloric acid and boil. Allow to cool, then test with Fehling's solution. (b) Half fill a test tube with a solution of sucrose that has been boiled for half an hour, and cooled. Test with Fehling's solution.

3. Can starch be changed to sugar? Into a beaker put one-half teaspoonful of starch. Pour in some water until the beaker is about one-quarter full. Add about 25 c.c. of dilute hydrochloric acid; stir and boil for 20-30 min. Allow to cool; filter and test the filtrate with Fehling's solution by adding it to a small quantity of the filtrate in a test tube.

4. What is the effect of calcium hydroxide on an organic acid? To some acetic or oxalic acid in a test tube add calcium hydroxide.

5. What is the effect of heat on albumen? Shake a small quantity of white of egg in a test tube with a little water. Heat.

6. Can color be removed from a solution by filtering through powdered charcoal? Pour a solution of potassium permanganate through a charcoal filter.

7. What is the effect of air pressure on evaporation and boiling? Partly fill a round-bottomed flask with water. Boil the water and after removing from the flame, cork the flask securely. Then invert the flask and pour cold water over it. What happens? Why?

Reference: *Chemistry of the Home*, pp. 226 (bottom), 230, 234 (middle), 237.

C. Write an account of the manufacture of sucrose and of glucose,

underlining in red those processes that are explained by the experiments just performed.

*D.* (Optional). (1) The testing of common foods (oatmeal, banana, parsnip, corn-meal, apple, raisins, etc.) for sugar; (2) A comparison of different sugars as to solubility, taste, and ease of crystallization; (3) The effect of strong sulphuric acid and of dry heat on sugars; (4) The changes that take place in a sugar solution when its temperature is gradually raised; (5) The effect of diastase on starch; (6) The effect of saliva on starch; (7) The effect of pancreatin on starch; (8) Dextrin and its uses; (9) Substitutes for sugar; (10) The use and abuse of sugar in the diet.

Consult your teacher for directions.

## MATHEMATICS

- I. Commercial arithmetic
- II. Algebra
  - First year
  - Third year
  - Fourth year
- III. Geometry
  - Second year
  - Third year

### 10 B ARITHMETIC

One of the first assignments in commercial arithmetic. Given to commercial girls who remember little arithmetic and who have to be taught how to study it. They have already been told that their work consists of two parts: (*a*) practice in rapid calculation; (*b*) study and practice of the principles of percentage. In the first week, note the suggestion as to how best to study the model examples. In the second week, note (*a*) the instruction on the proper use of the answer book; (*b*) the provision for additional drill for those who fail to pass the check-up. In the fourth week note (*a*) the omission of homework for the weaker girls because applications of the third case of percentage are rare; (*b*) the omission of a check-up for the weaker girls to enable them to catch up with their work.

Bibliography: Birch, *Applied Business Calculation*; Finney & Brown, *Modern Business Arithmetic*.

#### *I. Week of March 2*

*A.* In Birch, practice pp. 13, 15, 17.

*B.* Now you are to begin reviewing percentage. In Finney and Brown, study the examples in para. 131 on p. 152. These are to serve

as models to show you how to change from a common fraction or a decimal fraction to per cent and vice versa. Note especially 300%,  $\frac{1}{2}\%$ ,  $7\frac{1}{2}\%$ . Write down a rule showing how to change from (1) a common fraction, (2) per cent to common fraction.

C. Practice carefully the examples given as oral work on pp. 152, 153. Note examples number 5, 6, 9, 15, 18, 21, 25. For future use study those in ex. 39. Report to your teacher for a check-up to find out if you understand this work.

### *II. Week of March 9*

A. In Birch, practice pp. 21, 25, 27.

B. In F. and B., read para. 132 on p. 154. What are the three cases in percentage mentioned at the top of p. 155?

C. Study the examples in para. 133. These are in the first case in percentage. Do the oral work on pp. 155 and 156.

D. Write out the odd-numbered examples on p. 156. Compare your answers with those in the answer-book. What are you to do if you have not the correct answer to an example? When your answers are correct, hand in your work and report to your teacher for a check-up, on the first case in percentage.

E. If you fail to pass this check-up, write out and hand in the even-numbered examples on p. 156, being sure your answers are correct. Then report for another check-up.

### *III. Week of March 16*

A. In Birch, practice pp. 29, 39, 47. If you do not understand p. 39, read in F. and B., pp. 12, 13.

B. In F. and B. read para. 134, p. 158. Study the examples there worked out in the second case in percentage. Practice the oral work. Hand in the odd-numbered examples on p. 159 and nos. 13 and 15 on p. 160, after you have checked your answers. Report to your teacher for a check-up on the first two cases in percentage.

C. If you fail in this check-up, hand in the even-numbered examples on p. 159 and nos. 14 and 16 on p. 160. Report for another check-up when you are sure that your problems are correct and that you understand the subject.

*IV. Week of March 23*

A. In Birch, practice pp. 49, 51, 53.

B. In F. and B. read para. 135 on p. 162. This deals with the third case in percentage. Practice the oral work.

C. Maximum contract: Hand in examples on the lower part of p. 163 and ex. 7-12 on p. 154. Report for a check-up on this work.

*V. Week of March 30*

A. In Birch, practice pp. 55, 57, 59.

B. Prepare for a review test on percentage. Practice ex. 17-25 in the oral work on p. 166. Hand in p. 168, ex. 1-3; p. 169, ex. 1, 2, 5.

C. Maximum contract: Practice the first sixteen oral examples on p. 166. Hand in the written work on pp. 174 and 175. Report for a check-up in the work.

Another assignment in commercial arithmetic given later in the term to the same girls. Note (a) the increased brevity, (b) the omission of the weekly check-up as the monthly one is now sufficient.

Bibliography: Birch, *Applied Business Calculation*; Finney and Brown, *Modern Business Arithmetic*.

*I. Week of May 4*

A. In Birch, practice pp. 99, 101, 102.

B. Chapter XVIII in F. and B. is largely review of work you have had in elements of business. Read pp. 206-209. Work the examples on pp. 209, 210, and 211.

C. Maximum assignment: read pp. 212 and 213. Work the examples on pp. 213, 214, 215.

*II. Week of May 11*

A. In Birch, practice pp. 103, 104, 105.

B. The next pages in F. and B. tell how to send money to distant cities. Read p. 215, para. 177, and work the examples on p. 216. Read pp. 216-220, and work the examples on pp. 220 and 221. Read pp. 221-223, and work the examples on pp. 223 and 224.

*III. Week of May 18*

A. In Birch, practice pp. 107, 109, and 110.

B. Chapter XXII in F. and B. deals with inventories. Read pp. 249-254 and work the examples on pp. 249 and 250. Read pp. 255 and 256 and work ex. 1 and 2 on p. 255 and ex. 3 on p. 256. Read about payrolls on pp. 303 and work the examples on pp. 303 and 305.

*IV. Week of May 25*

A. In Birch, practice pp. 111, 113, 115.

B. Chapter XXIV in F. and B. deals with interest. Read pp. 257 and 258. Note carefully the rule in italics on p. 261; it is the same that you have been using for calculating bank discount. On p. 262, work the first four lines in the form at the top of the page.

C. Read para. 225, p. 263, to learn how to find the interest when the rate is other than 6%. Work the first three lines in the form on p. 264.

D. Read para. 227, p. 265, noting that the first method of computing the number of days is the same that you used in calculating bank discount. The second method is comparatively new to you, so work the first three lines in the form at the top of p. 267.

E. Maximum assignment: (1) to learn how to use deftly the "six per cent method," read pp. 258, 259, 260, and work the first six lines in the blank on p. 261; (2) to learn how to figure accurate interest, read p. 269, and work the first five examples at the top of p. 270.

F. Report for your monthly check-up.

## 9 A ALGEBRA

This is one of the first assignments given to the entering class.

Note: (a) the informal appearance; (b) the suggestions telling them how to study: — *e.g.* step A in the first week, step A in the second week, step B in the third week, step D in the third week; (c) the suggestions that in attempting new work, they first try to understand it independently; then, if they cannot, they ask the teacher; (d) the provision

for additional drill when needed, and the definite criterion given to judge of this need — *i.e.* failure in the check-up.

Bibliography: Durell and Arnold, *First Book in Algebra*; Wells and Hart, *New High School Algebra*.

### *I. Week of March 2*

Aim: to solve division problems easily.

A. Read carefully the rules in italics in D. and A., p. 83. Be sure you know how to find the coefficients and exponents of the quotient.

B. Solve in D. and A., p. 84 the odd-numbered problems in exercises 42 and 43, 1 to 21. Check answers.

C. Study the illustrated problem in D. and A., on p. 86. This is a long division problem because the divisor is composed of more than one term. If you do not understand the problem after you have read it thoughtfully, ask your teacher to explain it.

D. Solve the odd-numbered problems in D. and A., p. 87. Check answers.

E. Practice in W. and H., p. 93 the first fourteen problems until you are able to find the quotients in eight minutes.

F. If you fail the test on division, solve the even-numbered problems on pp. 84 and 87 before taking a second test.

G. Optional: W. and H., p. 94, 37 to 44.

### *II. Week of March 9*

Aim: To acquire skill in using and evaluating the formula.

A. What is a formula? If you do not know, find the definition in D. and A., p. 8 and W. and H., p. 19. From your work in mensuration you remember the rule for finding the area of a rectangle. Express the rule as a formula. If you cannot do this, you will find help in D. and A., para. 6 on p. 8. Also in W. and H., example 4 on p. 20.

B. Solve the odd numbered problems in D. and A., pp. 9 and 10.

C. Example 2, p. 21, in W. and H., gives you the formula for the area of a triangle. Solve problems  $g$ ,  $h$ ,  $i$ , and  $j$ .

D. Example 4 in W. and H., p. 22, contains the formula for the circumference of a circle. Using it, solve problems  $b$  and  $c$ . We shall have a conference on this work.

*E.* In example 6 in *W.* and *H.*, p. 22, you will find the formula for the area of a circle. By means of it solve problems *b* and *c*.

*F.* Find out what you can about Fahrenheit and Centigrade thermometers. We shall discuss their differences in conference. To convert a reading on the Fahrenheit to a reading on the Centigrade we use this formula:  $C = \frac{5}{9}(F - 32)$ . Using this formula, find the *C.* reading when the *F.* reading is 212 degrees, 32 degrees, 77 degrees. To convert a reading on the Centigrade to a reading on the Fahrenheit, we use this formula:  $F = \frac{9}{5}C + 32$ . Use this formula to find the *F.* reading when the *C.* reading is 15 degrees, 100 degrees, and 100 degrees.

*G.* If you fail the test on formulas ask your teacher for additional practice material before you take another test.

*H.* Optional: *D.* and *A.*, p. 11, 21 to 24. *W.* and *H.*, p. 21, ex. 3.

### *III. Week of March 16*

*Aim:* To acquire skill in short multiplication.

*A.* Read carefully in *D.* and *A.*, p. 101. Learn the rule in italics in para. 55. Also learn the rule in italics on p. 102. Ask your teacher for help if you do not understand the rules.

*B.* Solve the odd-numbered problems in *D.* and *A.*, p. 102, 1-42. Ask yourself as you do an example which rule applies.

*C.* Solve the odd-numbered problems in *W.* and *H.*, pp. 118 and 119, 1-30.

*D.* Practice the problems that will be on the board for two days until you can write the products accurately in three minutes.

*E.* If you fail the test on the week's work, solve the even-numbered problems before taking a second test.

*F.* Optional: *D.* and *A.*, p. 103, 58-67.

### *IV. Week of March 23*

*A.* Read in *D.* and *A.*, para. 57 on p. 103. Learn the rule in italics on p. 104.

*B.* Solve the even-numbered problems in *D.* and *A.*, p. 104, 1-28.

*C.* Solve the odd-numbered problems in *W.* and *H.*, p. 124, 1-16.

*D.* Practice the problems that will be on the board for two days until you can write the products accurately in two minutes.

E. If you fail the test on the week's work, solve the even-numbered problems before taking a second test.

F. Optional: D. and A., p. 105, 36-44. W. and H., p. 124, 17 to 28.

## 9 B ALGEBRA

This is an assignment from the second term's work in algebra.

NOTE: (a) the continued need for detailed instruction and for full printed explanations; (b) the detailed explanation of the problem worked out, especially the caution in step 4, with the full explanation given later; (c) the provision for preventing the repetition of wrong methods of work in step 1 *D* in the last three weeks' work.

Bibliography: Durell and Arnold, *First Book in Algebra*; Wells and Hart, *New High School Algebra*; Wheeler, *Exercises in Algebra*.

Last month we learned how to change fractions to lowest terms and to multiply and divide them. Do you remember how necessary you found it to be able to factor correctly? This month we shall find further uses for factoring in adding and subtracting fractions.

### I. Week of March 2

A. If we add  $\frac{1}{2}$  of a dollar to  $\frac{1}{4}$  of a dollar, what part of a dollar do we have? We have added fractions as we did in arithmetic. When we have completed the work on this sheet, we shall be able to add and subtract algebraic fractions.

We know from our arithmetic that when fractions have unlike denominators they must be changed to fractions which have a common denominator before they are added. For example: what should we do if we were asked to add  $\frac{1}{3}$  and  $\frac{1}{5}$ ? Since 15 is the smallest number to which 3 and 5 can be changed we should use 15 as the least common denominator. If the denominator of the first fraction is changed to 15, it has been multiplied by what? The numerator must be multiplied by the same quantity in order to keep the value of the fraction the same. Now, if the denominator of the second fraction is changed

to 15, by what has it been multiplied? The numerator must be multiplied by the same quantity.

You will find the illustrated problem at the bottom of p. 165 in D. and A. helpful.

B. Solve: D. and A., p. 166, 23-36. When you have completed these problems consult the answers on my desk to see if they are correct. If your answers are not correct, and you cannot find your mistakes, consult either one of the girls who has her work correct, or your teacher.

C. Solve: W. and H., p. 168, 1-25. Check up your work with the answer book, or let me see your work.

## II. Weeks of March 9, 16, and 23

A. Now we are prepared to add fractions because all there is to do after we have written the fractions using the L. C. D. (least common denominator) is to collect the terms of the numerators.

B. Solve: D. and A. pp. 167, 1-11; 168, 12-15; 168, 1-17. Check your work by consulting the answer book.

C. The fractions we have solved have had monomial denominators. What name shall we give to the denominators of the problems, p. 168, 19, 20? The girls have always found it helpful to follow these steps in adding fractions.

Suppose the problem is:

$$\frac{4}{x+1} - \frac{3}{x-1} + \frac{3}{x^2-1}$$

Steps:

1. Problem

$$\frac{4}{x+1} - \frac{3}{x-1} + \frac{3}{x^2-1}$$

2. Written with the denominator factored:

$$\frac{4}{x+1} - \frac{3}{x-1} + \frac{3}{(x+1)(x-1)}$$

3. L. C. D. and corresponding numerators:

$$\frac{4x-4}{(x+1)(x-1)} - \frac{3x+3}{(x+1)(x-1)} + \frac{3}{(x+1)(x-1)}$$

4. L. C. D. written once. Watch signs!

$$\frac{4x-4-3x-3+3}{(x+1)(x-1)}$$

5. Terms collected :

$$\frac{x - 4}{(x + 1)(x - 1)}$$

6. Sometimes the answer can be reduced to lower terms. In step 4, we notice that when a fraction is preceded by a plus sign, the sign of the terms of its numerator are not changed. But when a fraction is preceded by a minus sign, the signs of all the terms in the numerator must be changed. This is because a plus sign before a fraction indicates addition, whereas a minus sign indicates subtraction.

D. Solve: D. and A., p. 168, 18-35. When you finish six of these problems, let me see your work. W. and H., p. 171, 1-42. Let me see your work when you finish five problems. Wheeler, p. 86, 69-83.

Check up your work, using the answer book.

E. Be prepared for a check-up on the month's work on a day to be announced by your teacher.

F. Maximum assignment: D. and A., p. 181, 1-8; p. 182, 9, 10; W. and H., p. 173, 45, 46.

## 11 B ALGEBRA

Two assignments for upper form work in algebra that illustrate: (a) increased brevity; (b) additional motivation in the appeal to the future knowledge they will need as teachers; (c) increased amount of liberty given to the pupils; they are sometimes told to work enough examples to give the needed drill.

Text: Durell and Arnold, *Second Book in Algebra*.

### I. Week of March 2

Review of fractions and fractional equations.

On page 48 you will find some important properties of fractions. You already know this short rule: Every fraction has three signs of which you may change any two without changing the value of the fraction.

Remember there are four transformations of fractions which are called: (a) Reducing fractions to lowest terms; (b) reducing to a

mixed quantity; (c) reducing to an improper fraction; (d) reducing to a common denominator.

On page 49 work examples 7-13, answer 13, work 16-19. No. 22 is interesting because it indicates the proof for the divisibility of a number by 3 and by 9. Be sure you can answer 23 and 24.

There are also four operations with fractions. What are they? What is the distinction between operations and transformations? On page 51 work examples 8-11; on page 53, examples 7-10, and 13; on page 54, the odd-numbered examples. If you want more drill, work the even numbers

### *II. Week of March 9*

Read carefully pages 55-56. If you cannot find the principles involved in transposition, consult me. If you ever teach algebra, you will want to understand this. On page 58 work examples 14-18, 21-24, and 27. Read carefully pages 59-61, working the examples in exercise 35. On page 64, exercise 37, work examples 1, 3, 4, 5.

### *III. Week of March 16*

Continue exercise 37, solving examples 9, 10, 12, 13, 15, 16, 17, 22, 24, 25. There will be a check-up at this point.

## 12A ALGEBRA

Bibliography: Durell and Arnold, *Second Book in Algebra*.

### *Weeks of March 2 and 9: simultaneous quadratic equations*

Case I: When one equation is of the first degree and the other is of the second degree, they may always be solved by substitution. Study the illustrative example in article 99, p. 155. On p. 156, work examples 1, 2, 4, 5, 6, 7, 9, 11, 13. Group the values of  $x$  and  $y$  correctly; check all results.

Case II: Both equations are homogeneous and of the second degree. Learn the definition of a homogeneous equation, article 98 and of the absolute term, article 97. Solve case II by eliminating the absolute term. Factor the resulting equation. Using each factor with one of the given equations, solve by substitution. There are four values of  $x$  and four of  $y$ . Group these values correctly; check all results. On p. 157, work examples 1-5, 7, 9, 11, 12, 13, 14.

Case III: The equations are symmetrical.

The definition of a symmetrical equation is in article 102. Study the various cases illustrated on p. 159. Notice that in solving symmetrical equations, the object is to obtain by addition and subtraction, in connection with multiplication, values of  $x$  plus  $y$  and  $x$  minus  $y$ , from which we obtain the values of  $x$  and  $y$ . On p. 160 work examples 1-9, 13, 14, 15. College girls work examples 10, 11.

*Week of March 16: Review*

P. 161, exercise 87, work examples 1-8. P. 162, work examples 1-6, 9, 10, 12, 14, 16. Be sure to check all results.

10 B GEOMETRY

This is one of the first assignments given out in geometry.

NOTE: (a) in step A of the second week, the reminder of the proper methods of study, and the pivotal question about theorem XIV; (b) the attempt to create interest pockets; (c) the introduction of self-corrective devices — first, in telling the girls what “knowing” the work means, second, in giving numerical work that can be readily checked by the girls; (d) the special help for those who need it in the week of March 16.

Textbook: Durell and Arnold, *Plane Geometry*.

*I. Week of March 2*

Aim: To learn the relation between a tangent and a radius drawn to the point of contact.

A. Study proposition XII and corollary I. You need a conference on the proof of this corollary. Corollaries II and III need be studied only in the maximum assignment.

B. These facts that you have just learned are very important. Test yourself to see if you understand them, first, by constructing a tangent at a given point on a circle; second, by doing the first seven exercises in group 29, on p. 125. When you think you know this work,

present yourself to your teacher with your exercises completed for her to test your knowledge.

C. Study proposition XIII.

D. Circumscribe a circle about an acute triangle, about an obtuse triangle, about a right triangle.

E. Do the exercises on p. 127.

F. You should be ready for a check-up on your work, Friday, March 6.

### *II. Week of March 9*

Aim: To learn miscellaneous and important facts about circles.

A. Study propositions XIV and XV, and the definitions on pp. 128 and 130. Test yourself as to your understanding of these and your ability to apply them. Do you try to develop each theorem as an original and then compare your work with the proof in the book? This is splendid training for you. Do you know why the triangles in theorem XIV are equal?

B. Do the exercises on pp. 129, 130. Do in group 30, exercises 1, 2, 3, 8, 9, 10, and in group 32, exercises 1, 2, 3.

C. Do you know Christopher Morley's verses on "The Circle"? You will be interested in these now that you know something about circles. If you can find this poem in the library, bring a copy to class.

D. Maximum assignment: group 30, examples 4, 5, 6, 7, 12.

E. Check-up, Friday, March 13.

### *III. Week of March 16*

Aim: To learn how to find the number of degrees in a central angle and in inscribed angles.

A. Study the definitions on pp. 132, 133, and 136, and theorems XVI and XVII.

B. You may need further help with theorem XVII. If, after you have read the proof of case I twice, you still do not understand it, answer these questions yourself before coming to conference. Suppose arc  $BC$  is 80 degrees. How many degrees are there in angle  $BOC$ ? Now, what kind of triangle is  $AOC$ ? How many degrees in angles  $A$  and  $C$ ? In each angle? Now compare your result with the number of degrees in arc  $BC$ , and see how else you could have

obtained this number. Read the proof in the book again. If you still do not understand, consult some one.

C. Case II of this theorem depends on case I. Read the proof twice. If you still do not understand it, answer these questions. Suppose arc  $BD$  has 40 degrees and arc  $DC$  50 degrees. How many, then, are the degrees in angle  $x$ ? In angle  $y$ ? How many, then, in angle  $BAC$ ? Compare the result with the number of degrees in arc  $BC$  and see how else you could have obtained this number. Read the proof once more. This time you should be able to understand it. If you do not, consult some one.

D. Case III of this theorem is proved similarly to case II. Try to do it yourself. If you cannot, answer these questions. (You should not need as much help as you did with case II.) What two angles in figure 3 have a diameter for one side? What angle is their difference? Now try to write the proof, remembering the word "difference."

E. If you do not understand and know all three cases of this theorem, consult your teacher. To *know* this work means (1) to understand the proof; (2) to know the facts proved so well that you can apply them instantly.

F. Test yourself by studying and proving the corollaries of XVII and by doing the exercises in group 31, 1-9. Maximum assignment: group 31, 10-13.

#### IV. Week of March 23

Aim: To learn how to find the number of degrees in other angles in circles.

A. Study propositions XVIII-XXI. This means that you must know the words of the theorems, and know and understand the proofs. If you cannot understand the proof, insert numbers in the proofs the same as was done last week with cases II and III of theorem XVII. If you still do not understand, consult your teacher.

B. Be sure you know this work. Read under paragraph five for last week to see what is meant by knowing this work.

C. Test yourself by copying the figure which you will find on the board in the classroom, and finding all the angles. (This can also be found in Palmer and Taylor, p. 123.)

D. Review the work for the month and present yourself to your teacher for a final checking up.

## 11 A GEOMETRY

Another assignment in geometry that shows: (a) increased brevity; (b) provision for different abilities in the inclusion of very simple problems for slow girls and in two maximum assignments for the others.

Bibliography: Durell and Arnold, *Plane Geometry*.

*Weeks of September 10 and 14*

A. By solving the exercises assigned for these weeks, we shall review and apply some of the knowledge we acquired last term.

B. Review the statement of the sixteen theorems in Book III.

C. Solve in D. and A., p. 210, ex. 51.

D. Solve in D. and A., p. 211, ex. 52, 1 to 3.

E. Maximum assignment: (a) ex. 52, 4, 6, 7, 8, 9 (use para. 324): (b) ex. 52, 5, 10, 11, and 12.

*Week of September 21*

A. In Book IV you will find the formal proof of the rules you learned in the eighth grade. Girls preparing for Normal School should be especially interested in these proofs.

B. Study definitions on page 223, noting especially art. 330. This information is important in the use of the formulas which you will learn later. It is a point not always understood by teachers of arithmetic. Observe the method of finding the area of a triangle and rectangle as given on p. 223, exercises 1 and 2. We shall find a more efficient way of calculating the area.

C. Study definitions on p. 225, articles 331, 332, and 333.

D. In studying theorems I and corollaries, II and III, note that in the first two we learn the relation between two rectangles having: (1) the same altitude; (2) the same base; and (3) any two rectangles; and in the third the area of a rectangle.

E. Solve the numerical examples on pp. 227 and 228. There are mixed numbers in these problems. If you don't remember how to multiply and divide such expressions, refresh your memory.

F. Maximum assignment: (a) group 54, 5, 7, and 9; (b) p. 214, group 55, 1, 2, 3.

*Week of September 28*

A. Study theorems IV and V, the corollaries to these theorems, and the exercises on pp. 230 and 231.

B. As you read theorem IV you will notice that it deals with the area of the parallelogram, while the corollaries consider the relations of two or more parallelograms. The order with the triangle is similar. This is opposite to the order of the theorems dealing with the rectangle.

C. The girls doing the maximum assignment will present the proof of the corollaries to the class.

D. Maximum assignment: These can be found in Robbins' *Plane Geometry*, p. 198.

1. If one parallelogram has half the base and the same altitude of another, its area is one-fourth the area of the second.

2. If one parallelogram has half the base and half the altitude of another, its area is one-fourth the area of the second.

3. If a triangle has half the base and half the altitude of a parallelogram, the triangle is one-eighth of the parallelogram.

4. If a parallelogram has half the base and half the altitude of a triangle, its area is half the area of the triangle.

5. (a) Proofs of the corollaries of IV and V.

(b) D. and A., p. 215, 5, 6, and 7.

## LANGUAGES

- I. General statement
- II. General directions for study
- III. French
- IV. Spanish
  - First year
  - Fourth year
- V. Latin
  - First year
  - Fourth year

The assignments in foreign languages vary according to the class, to the books to be used, and, to some extent, to the temperament of the teacher. Some assignments are rather pleasant to read, containing suggestions as to methods of procedure, and hints for the arousing of interest. Others are exceedingly uninteresting to view, containing only an assignment of pages, or chapters. These differences in assignments are partly due to the degree of correspondence between the course of study to be followed and the textbook used. If, for instance, chapter ten in the grammar contains all the material needed for a given week, with sufficient explanation and with interesting exercises, there is no reason why chapter ten may not be the assignment for that week. In other cases, it is necessary to "skip around" for the sake of covering the ground or for the purpose of using exercises in the book. Sometimes a little additional explanation will help to clarify or will arouse interest. In general it has been felt that the assignments ought to be concise and short, so that by a glance of the eye the pupil

can see exactly what to do. There is danger, too, that if long printed sheets are given out each month in each subject, the pupil may neglect to read any of them thoroughly, and the very advantage of the definiteness of the task is lost.

One assignment has the pages of reading omitted. This is because the teacher spends a part of the time in "sight reading"; the regular reading then proceeds from the point reached in class. The assignment would be about like this: minimum two pages, maximum one page more, sight reading one additional page covered in class. This sight reading is done almost entirely by the superior group and is intended as an additional opportunity for them to exercise their ability and to allow the others to hear good sight reading while they are getting the thread of the story.

The directions for the preparation of foreign languages are given at the beginning of each term and the pupil is supposed to keep the sheet with her assignments, and to refer to it from time to time. It is a waste of time, of course, to reprint this every month.

#### DIRECTIONS FOR PREPARING FOREIGN LANGUAGES

This sheet is given to each pupil of the lower forms at the beginning of the term.

I. Vocabulary: *A.* Read the words in French, or in Spanish, aloud, if possible.

*B.* Cover the words with a card and, looking at the English, try to say the French, or Spanish, to yourself.

*C.* Repeat several times the words which you find that you do not know.

*D.* Cover the words again with a card and, looking at the English, write the French, or Spanish.

*E.* Compare what you have written with the book and write several times the words which you had wrong.

II. Reading: *A.* Read the passage over quickly in French, or Spanish, aloud, if possible, and try to understand as much as you can.

*B.* Read again very carefully, looking up the words which you do not know, and translating into good English the passages with which you find difficulty.

*C.* Read again in French, or Spanish, trying to understand without translating.

III. Questions: *A.* Read each question aloud in French or Spanish.

*B.* Answer each question to yourself in French or Spanish.

*C.* If you have prepared your reading carefully, you ought not to find it necessary to look up words, but if necessary, look up words, and refer to the reading on which the questions are based.

IV. Grammar: *A.* Read the examples and the translations of them.

*B.* Read the explanations, or rules, and try to understand them.

*C.* Read the examples again and see how they apply to the rules.

*D.* Learn the rules and memorize one example to illustrate each.

V. Idiomatic expressions: *A.* If translations are given, prepare as directed for vocabulary above.

*B.* If translations are not given, prepare as directed for reading above.

VI. Exercises: *A.* Do what you are told in your book to do.

*B.* Write neatly what you are told in your assignment to write.

*C.* Read to yourself, aloud, if possible, what you have written in French or in Spanish.

Owing to the necessity of acquiring a good pronunciation and to other difficulties encountered by those studying a foreign language for the first time, the beginners in French are not given "free time" until they have completed about three months' work. The assignment which follows was given to the class in May, and represents the first one given to this class in French. Before attacking it, the children were thoroughly drilled in methods of study, especially as they applied to the Dalton Plan. Then they were put on

their own responsibility. In some cases, with especially difficult lessons, the teacher divided the class period, using the first part for a "conference," the second for a study period. During the conference, difficulties were cleared up and new words carefully pronounced. During the study period the pupils brought to the teacher their problems. Other opportunities for individual help were afforded, of course, by the "free days."

Very great care is exercised in checking up the beginners, to see to it that they do not by their inexperience fall into bad habits, or lag hopelessly behind.

## 9 A FRENCH

Text: Roux, *A First French Course*.

### *First week*

#### Lesson 11.

A. Study the vocabulary. Be able to give the present tense of all the verbs ending in *er*. Prepare the French text with special attention to the verbs.

B. Study the grammar, sections 47-49. Be sure that you know how to say in French: *some ink, some chalk, any pencils, some children, any paper, some pears, any apples*, etc. Make a list of masculine singular nouns, and a list of feminine singular nouns, and write before each noun the French expression for *to the*. Re-write these lists in the plural. What is the difference between *il y a* and *voilà*? Be prepared to give examples.

C. Prepare answers to questions 1-12 of the questionnaire. Prepare exercises B, D, E orally. Write in your notebooks A and F.

### *Second week*

#### Lesson 12.

A. Study the vocabulary and the French text. Do you find any new *er* verbs in this vocabulary?

B. Study sections 50-52. When you study section 50, review carefully section 47, page 50; then translate these sentences: I

*have some books, I have no books, he has some paper, he has not any paper, have you some chalk? we have no chalk, they have some pretty pictures, she has small hands.* How do we translate *some* or *any*, used as a pronoun? Where is it placed in the French sentence?

C. Learn the expressions in section V. Prepare answers to questions 1-10 of the questionnaire. Prepare exercises *A*, *C*, *D* orally. Write *B* and *E*.

### Third week

#### Lesson 13.

A. Learn the vocabulary. Prepare carefully the French text.

- B. Study sections 53-55. What new form of the verb is given in 53? Practice giving this form of at least ten verbs; then write exercise *A* in your notebooks, and prepare *B* orally. When you prepare section 54, review 51, page 54. What are all the meanings of *en* that you have studied? Do all nouns and adjectives add *s* in the plural? Form the plural of: *le corps*, *le fils*, *la voix*, *le nez*, *doux*, *gros*, *français*, *gris*.

C. Prepare answers to questions 1-12 of the questionnaire. Prepare exercise *E*. Write *D* and *F*, 1-12.

### Fourth week

#### Lesson 14.

A. Learn the vocabulary. Do all the verbs end in *er*? What other endings do you see? Prepare the French text with special attention to the verbs.

B. Study sections 56, 57-58. Be able to conjugate the present tense of: *finir*, *choisir*, *répondre*, *attendre*, *descendre*, in all forms studied.

C. Write exercise *A* in your notebooks. Prepare answers to questions 1-12 of the questionnaire. Prepare V and exercise *B*, *C*, *D*, orally. Write *E*.

## 12 A AND 12 B FRENCH

Bibliography: Fontaine, *French Prose Composition*; Pierre Loti, *Pêcheur d'Islande*; Fontaine, *Fleurs de France*; Fraser and Squair, *French Grammar*.

*First week*

- A. Composition: Fontaine, "The Wonder of Venice."
- B. Prepare pages 1-4 in *Pêcheur d'Islande*, or pages 1-4 in *Fleurs de France*.
- C. Review (a) all demonstrative adjectives and pronouns, (b) French constructions for English forms ending in *ing*, (c) use of *ne* alone as negative.

*Second week*

- A. Composition: Fontaine, "Edouard Pailleron."
- B. Prepare five pages in *Pêcheur d'Islande*, or in *Fleurs de France*.
- C. Study the irregular verbs: *plaire*, *pouvoir*, and *pleuvoir*.

*Third week*

- A. Composition: Fontaine, "The French in Africa."
- B. Prepare five pages in *Pêcheur d'Islande*, or in *Fleurs de France*.
- C. Written review of the grammar assignments for this month.

## 9 A SPANISH

Text: Marcial Dorado, *Primeras Lecciones*.

*First week*

- A. Study the imperfect tense of *ser* and *ir*, p. 60. You will find the complete conjugation on p. 254. Prepare the exercises on pp. 60-61. Write exercise I in your notebook.
- B. Study the numbers and prepare the exercise on pp. 62-63. Review those previously studied. Write the first two lines of numbers on p. 63, IV.
- C. Study the story and the questions on pp. 63-64. Memorize the note on p. 64.
- D. Prepare the exercises on p. 64. Memorize the second note on that page. The exercises are important. Make sure that you know each sentence. Translate ex. III and write it in your notebook. Read it over until you can translate the sentences fluently without looking at your writing.

*Second week*

A. Study the vocabulary on p. 65 and learn how to tell time in Spanish. Study the reflexive verb on p. 66; add the two persons omitted; find the reflexive pronouns on p. 249. Place them before the verbs as you conjugate the present and imperfect tenses. Not all verbs are reflexive. You can recognize them by the pronoun *se* at the end of the infinitive. Remove it and place the proper form for each person before the verb as you conjugate it. A reflexive verb cannot be used without these pronouns. Write the present and imperfect tenses of *levantarse* in your notebook.

B. Study the questions on p. 66 and prepare the other exercises. Find more reflexive verbs in the vocabulary. Conjugate them.

C. Read, translate, and study the story on pp. 68-69. Study the vocabulary and the answers to the questions. Make sure that you can answer them without looking at the text.

D. Study the six prepositions on p. 69 and prepare the exercises on p. 70. Translate and write exercise III.

*Third week*

A. Study the months and the seasons on p. 71. Memorize the "Rima" and finish the lesson on p. 72. Write the answers to questions 3-7 in your notebook.

B. Study the story and answer the questions on pp. 74-75.

C. Finish the lesson on pp. 75-76. Memorize exercise IV and translate and write exercise V.

D. This is "verb day." Review the present and imperfect tenses of all the verbs you have studied: *ser, estar, ir, tener*; the three regular conjugations; the reflexive verbs. Be prepared to write any of these verbs.

*Fourth week*

A. This is "story day." See how many of the stories studied you can tell in Spanish. Review them. Can you ask questions on any or all of these with your book closed? Try it.

B. This is "donkey day." The Spanish people are very fond of that animal. Find out the reason for it on pp. 76-78. Study the text.

C. What ails the "burro"? Read it and see, p. 79. When you understand the meaning of the poem, read it aloud till you can do so without hesitation and with expression.

D. On pp. 80-82 you will learn about another useful animal. Study all about it. Notice the new verb tense used. We shall study it next month.

## 12 A SPANISH

The books we shall use this month are Olmsted and Gordon, *Abridged Spanish Grammar*; Waxman, *A Trip to South America*; Romera-Navarro, *Historia de España*; Galdos, *Marianela*.

### *First week: May 4-8*

A. *Marianela*: Prepare as in last month's assignment pages 123-127. Remember that in a résumé, only the important events are stressed. Be sure to look up any words the meaning of which you do not know.

B. Waxman: Lesson XXIII, translate paragraph I; prepare orally paragraphs 2 and 3 as far as "That man over there," line 10.

C. Write the remainder of the exercise.

### *Second week: May 11-15*

A. *Marianela*: Prepare pages 134-140 as in part A of the first week's assignment.

B. *Historia de España*: Read and study chapter XXIII. Prepare the questionario.

C. Olmsted and Gordon: Lesson XXX. Study the entire lesson.

D. Write the composition on page 145.

### *Third week: May 18-22*

A. *Marianela*: Prepare pages 144-151 as in part A of the first week's assignment.

B. Waxman: Lesson XXIV. Translate paragraph I. Prepare orally paragraphs 2 and 3 as far as line 27, "We shall have to be careful."

C. Write the remainder of the exercise.

*D. Historia de España:* Read and study chapter XXIV. Prepare the questionario.

*Fourth week: May 25-29*

*A. Marianela:* Prepare pp. 151-157 as in part *A* of the first week's assignment.

*B. Olmsted and Gordon:* Lesson XXXII. Study the entire lesson.

*C.* Write the composition on p. 154.

*D. Historia de España:* Read and study chapter XXV. Prepare the questionario.

9 A LATIN

Text: Smith, *Elementary Latin*.

*First week: June 1-4*

*A.* Study in lesson XXXI the explanations and the vocabulary. Write two original Latin sentences to illustrate the complementary infinitive. Prepare 211 for oral translation: also the story "Populus Romanus." What interesting fact can you find in this lesson about the Roman Emperor Titus?

*B.* Write to hand in 212 (*a*).

*C.* and *D.* Study lesson XXXII. Prepare 218 and 220 for oral translation. Write 219 (*a*). Omit 219 (*b*).

Optional: Write 219 (*b*).

*Second week: June 8-11*

*A.* Study lesson XXXIII, omitting 224. Prepare the other exercises for oral recitation.

*B.* Study lesson XXXIV, omitting 231. Prepare the rest for oral recitation.

*C.* Lesson XXXV: The passive of the third conjugation. Write out the conjugation of *duco*, following the rules in Lesson XXVI. *After you have written it*, compare your work with 588; study the vocabulary and prepare 236 and 237 for oral translation.

D. Study the *ablative of specification* (238) and translate 239 orally, following the directions given.

Optional: Write 240 (a).

*Third week: June 15-18*

A. Prepare the review lesson, XXXVI, for oral recitation, except 244, 3, which you may write.

B. Study lesson XXXVII. Prepare 251 for oral translation. Write 252 (a).

C. Study lesson XXXVIII. Prepare 259 for oral translation.

D. The oral exercises 253 and 261.

Optional: Write to hand in 260 (b).

12 A AND 12 B LATIN

VIRGIL II

Books: *Selections from Ovid*, Kelsey and Scudder; *Latin Writing, Book Two*, Barss; *A New Latin Grammar*, Allen and Greenough.

*First week*

Report for conference on Monday, Wednesday, and Thursday.

A. Barss, lesson X: write sentences 1-4. Lesson XI: write sentences 1, 2, 6, and 9.

B. Barss, lesson XII: write sentences 1, 5, 6, 8, 10, 11, and 12. Have this prepared by Monday. (Two days.)

C. Barss, lesson XIII: write the "connected prose."

D. Barss, lesson XIV: write sentences 3 (five different ways), 7, and 8.

E. Barss, lesson XV: write sentences 2, 3, 4, 8, and 9. Have this prepared by Thursday. (Three days.)

On Wednesday bring your Ovids to class.

*Second week*

A. Barss, lesson XVI: write the "connected prose."

B. Barss, lesson XVII: write sentences 3, 4, 5, and 7. Prepare this for Monday.

C. Barss, lesson XVIII: write sentences 1, 2, 3, 4, 6, and 12.

D. Barss, lesson XIX: write sentences 1, 2, 3, and 10. Prepare this for Thursday.

Report as for the first week. Bring your Ovids to class on Wednesday.

On Friday, May 15, there will be a written test on the composition for the two weeks.

### *Third week*

Come to conference on Wednesday, Thursday, and Friday.

A. Translate the story of Perseus. The maximum for this week and next is the story of Daedalus and Icarus.

B. Write the scansion of lines 42-46 and read them until you can read them smoothly.

C. Read Kelsey and Scudder's *Introduction*, pp. 20-23.

D. Look up *metonymy*, *litotes*, and *euphemism*.

### *Fourth week*

A. Translate the story of Orpheus and Eurydice.

B. Write the scansion of the five lines which you like best, and be able to read them smoothly.

C. Look in the index of Gayley's *Classic Myths* and in the *Commentary* and find literary references to this beautiful story.

D. Look up *zeugma*.

E. Look up in Allen and Greenough and in Barss, lesson XXVIII, the Roman method of reckoning dates.

## ART

- I. First Year
  - A. Lettering
  - B. Repetition and balance
  - C. Historic art
- II. Second year
  - A. Design
- III. Third year
  - A. Design

### 9 A ART

#### LETTERING

Subject: Lettering (alphabet and quotation).

Aim: To promote accuracy and neatness.

Time: Two double periods.

Grading: Ability to follow directions, 30; printing, 40; neatness, 20; effort, 10.

Materials: Medium lead pencil, sheet of examination paper, ruler.

Problem I. Directions: Hold paper with red margin to the left; draw a margin of  $\frac{1}{2}$ " on right-hand side of the paper and one of  $\frac{1}{4}$ " inside of the red margin. On the margin just drawn start lettering between the first two lines of the paper, using the "light italic" alphabet on page 23 of the "lettering book" as a model. Skip a space between each line of lettering. Notice that the lower case letters are  $\frac{2}{3}$  the height of the other letters. Be careful to keep the same slant in all the letters.

Finish the entire alphabet, both upper and lower case letters, before starting the numbers. The missing numbers are found on page 22 in the "italic" alphabet. You will find that the last three or four numbers cannot be put on the line with the others. Space them so they will come in the center of the next line.

Problem II. Directions: Skip a space after the last line of numbers

and print a quotation of your own selection using both upper and lower case letters and observing the following rules :

1. The space between two or more words on the same line is always the width of the widest letter (which is the letter M). The size of this space, therefore, varies according to the size of the letters used.
2. If two vertical letters come together in any word, allow more space between them than between other letters. This applies more particularly to words in which all upper case letters are used. For example, in the word "GILDA" more space should be left between the letters I and L. If they were put the same distance apart as the other letters, they would appear to be closer together.

After the quotation is completed, print your name, to the right, in the next space provided, making your letters  $\frac{1}{2}$  the height of those used in the alphabet and quotation. To the left, using the same size letters as your name, print your form, book number, and the day and periods in which you come to Art.

If after showing your paper, your work is G, you may do an optional problem of a second short quotation on the same paper provided the required amount is finished before the middle of the month. You will receive extra credit for this optional work if it is well done.

Problem III. Subject: Color; intensity scale.

Aim: To promote accuracy and an enjoyment of color in nature and objects of everyday use.

Time: One double period.

Grading: Ability to follow directions — 30: color — 40: neatness — 20: effort — 10.

Materials: Box of Prang or Weber's water colors, no. 5 brush, 1 sheet of  $9'' \times 11\frac{1}{2}''$  white paper, ruler, pencil, pen, and ink.

Directions: Arrange your paper with a margin of  $1''$  at the top,  $\frac{1}{2}''$  at the sides, and  $1\frac{1}{4}''$  at the bottom. Copy one of the intensity scales found in chart B on page 251 of Prang's *Art Education for High Schools*, arranging your paper in the following way: On the two side margins, beginning at the top margin, measure down  $\frac{3}{4}''$ . Connect points. The space thus formed below the top margin will contain the title of the paper which is "Intensity Scale," and will be  $\frac{1}{4}''$  in height and  $\frac{1}{4}''$  below the top margin. From the line  $\frac{3}{4}''$  below the top margin measure alternately  $1\frac{1}{8}''$  and  $\frac{1}{4}''$  on both side margins until you have measured six  $1\frac{1}{8}''$  spaces. Connect the points. Next find

the vertical center of the paper. Measure  $\frac{1}{2}$ " either side of this line, and then  $2\frac{1}{2}$ " out from this point. Take the measurements at the top and bottom of the paper and connect the points so that your paper will be divided into 12 oblongs, arranged in two rows, each oblong measuring  $2\frac{1}{2}$ " in width with 1" between the two rows, and  $1\frac{1}{8}$ " in height with  $\frac{1}{4}$ " between the oblongs. Proceed to color. Print name, book number, grade, and periods  $\frac{1}{8}$ " high, the name placed to the right; grade, etc. to the left,  $\frac{1}{8}$ " below the bottom margin.

Problem IV. Subject: Color.

Aim: Same as for problem III.

Time: One double period.

Grading: Same as for problem III.

Materials: One sheet of  $12'' \times 18''$  construction paper, 4 colored pictures, colored designs, or colored fabrics; lead pencil, pen, and ink.

Directions: Fold sheet in half so that it forms a booklet  $9'' \times 12''$ . Arrange each inside half with the following margins: top, 1", sides,  $\frac{3}{4}$ ", bottom,  $1\frac{1}{4}$ ". On each page paste two pictures or fabrics selected, being careful to arrange your space so that you will have room for printing under each one and keeping the larger pictures for the bottom. Under each picture or fabric designate the color to which you wish to call particular attention and give its value and intensity, comparing it with the color, value, and intensity charts on page 251 of Prang's *Art Education for High Schools*, in order to verify your judgment.

Optional work: Arrange the cover of the booklet with margin, title, name, grade, and periods.

#### REPETITION AND BALANCE

Subject: Order in nature — repetition and balance.

Aim: To promote understanding of the laws of nature and show their relationship to art, particularly to design.

Time: Four double periods — two problems of two periods each.

Grading: Ability to follow directions — 30: drawing — 40: accuracy — 20: effort — 10.

Problem I. Materials: Sheet of  $9'' \times 12''$  cream sketching paper, medium (H-B) and soft (2 B) pencils, ruler, a pod of peas or beans, or berries in a row on a stem.

Note: Nature material will be supplied for the second lesson on this problem; but one of those mentioned must be supplied by you for the first lesson.

Directions: Arrange paper held vertically with margins as follows: top 1", sides  $\frac{3}{4}$ ", bottom  $1\frac{1}{4}$ ". Make a drawing of an opened pea or bean pod, showing the seeds, or if you have selected berries, draw them. Use medium pencil and accent with the soft one. Place drawing above the center of the paper. The title is "Repetition," placed  $\frac{1}{2}$ " below the top margin, and is  $\frac{1}{2}$ " high. Arrange name, grade, book number, and periods as in problem III of the September assignment. All of the above should be accomplished during the first double period. During the second double period, make a drawing in the lower half of the paper of the material given you, being careful to keep the drawing well up so that you will have a space of 2", or more between the lower part of the drawing and the bottom margin. Accent the drawing as in the last lesson. Draw two guide lines  $\frac{1}{4}$ " apart under each drawing and label them properly; either "In a row" or "In a field."

Problem II. Materials: Paper, pencils, ruler as for problem I: cosmos flower, daisy, petunia, or some such flower having a single row of petals. A leaf will be needed for the second lesson, preferably one with the halves either side of the midrib unlike, such as the oak.

Directions: The margins and general arrangements of the paper are the same as for problem I except that the title is "Balance." In the upper half of the paper draw the top view of the flower you have selected, keeping the size of the drawing in good proportion to the size of the paper. In the lower half to the left draw the side view of the same flower. This should be accomplished in one lesson. For the second lesson draw to the right the leaf you have selected; front view if the halves are unlike. Label each drawing as in problem I with the proper title: "Bisymmetrical," "Occult," or "Radiation" as the case may be. Arrange name, grade, book number, and periods as previously.

## 9B ART

### HISTORIC ART

Subject: Historic art.

Aim: To promote an appreciation and knowledge of proportion in design.

Time: Four double periods; two problems of two lessons each.

Grading: Accuracy of arrangement — 20: drawing — 30: ideas — 20: neatness — 20: effort — 10.

Problem I. Materials: 1 sheet of 12" × 18" paper, 4 sheets of cream sketching paper, size 9" × 12"; collection of pictures showing Greek architecture and ornament; Colonial architecture, doorways, windows, and furniture; paste, pencil, ink, or crayons, and ruler.

Directions: Fold the large sheet of paper so that it forms a booklet 9" × 12". Arrange the cover with margins, title, name, grade, book number, and periods. (One period.)

Problem II. Materials: 1 sheet of cream sketching paper, 9" × 12", pictures of the three Greek orders, pencil, ruler.

Directions: Arrange paper with margins in good proportion. Make sketches of the Doric, Ionic, and Corinthian orders of Greek architecture and label carefully. Print name, grade, book number, and periods  $\frac{1}{8}$ " high and  $\frac{1}{8}$ " below the bottom margin, placing the name to the right and the other information to the left.

Note: The Doric and Ionic orders should be finished in one Art period, leaving the Corinthian order and the printing for the next period.

#### HISTORIC ART (*Continued*)

Problem I. Subject: Historic art (*continued*). Aim and grading as in September assignment.

Time: Two double periods.

Materials: Same as for problem II of the September assignment, substituting pictures of Colonial architecture and furnishings for the Greek.

Directions: Proceed in the same manner as for problem II of September assignment.

Problem II. Subject: Design (dress, home, poster).

Aim: To promote an appreciation and knowledge of good taste in dress and home furnishing and originality of ideas in design.

Time: Two double periods.

Direction: Class discussion of the principles governing good taste in dress, the home and poster making or advertising, with notes in outline form.

Grading: Contributions to the discussion — 30: notebook — 40: attention — 30.

## 10 A-10 B ART

### ASSIGNMENT I

Time: Two lessons of double period each.

Problem I. On a sheet of practice paper  $9'' \times 12''$ , create abstract patterns or units derived from natural forms and suitable for:

1. Woodblock; (2) Surface repeat; (3) Stencil border. Time, two double periods.

Problem II. The maximum assignment includes, in addition, the following: Apply your woodblock design to material. This may be a bag, curtain, table runner, scarf, or something else. This problem may be begun only upon the satisfactory completion of problem I. It may be carried over into October, as a maximum assignment for further development.

Aim: To learn to adapt natural forms to the needs of conventional design and decoration; to learn the processes of pattern making; to learn to apply design to material, carrying your problem through its various stages to completion.

Materials required: A sheet of practice paper  $9'' \times 12''$ , tracing paper, an H-B lead pencil, a ruler.

Directions for work: After discussion of the points involved, work the problem assigned. If you need further help or suggestions, take advantage of your art conference period.

When your September's assignment is finished, hand in your work for your grade. Be sure to have your name and section on every drawing paper you hand in.

### ASSIGNMENT II

Time, four lessons of double period each.

Problems. 1. On a sheet of drawing paper  $9'' \times 12''$  draw margins and letter your title "Derived Design." Time, one double period.

2. Transfer accepted designs for "woodblock" and "surface repeat" to the sheet entitled "Derived Design." Time, one double period."

3. Transfer accepted design for stencil border to the same sheet. Letter all designs. Time, one double period.

4. Trace design on woodblock. Time, one-half double period. Cut woodblock. Time, one-half double period.

If you are permitted to work the maximum assignment, continue (or begin) problem designated as maximum in your September assignment.

Aim: As expressed in your September assignment. Please re-read this statement.

Materials required: 1. A sheet of drawing paper  $9'' \times 12''$ , tracing paper, pencil, ruler, book of alphabets.

2. Same as 1.

3. Same as 1.

4. Tracing paper, carbon paper, pencil, woodblock, knife.

Directions for work: After a demonstration by your teacher, trace your design. Cut your woodblock.

When your October assignment is finished, hand in your work for your grade. Be sure to have your name and section on every drawing paper you hand in.

## 11 A-11 B ART

### ASSIGNMENT I

Time, two lessons of double period each.

Problems: Advanced design. 1. Arrange a sheet with margin lines and title "Nature Study and Design." Time, one double period.

2. Draw butterfly forms, three. Time, one double period.

(Students of high grade in art should choose the more difficult forms; those of low grade in art should choose the simpler butterflies.)

Aim: To train observation and to coördinate eye and hand; to develop judgment in spacing, planning, and developing a problem with its title, giving special attention to arrangement on the page; to heighten the color sense.

Materials required: A sheet of drawing paper  $12 \times 18''$ , H-B pencil, ruler, book of alphabets, plates of colored butterflies or mounted specimens, tracing paper.

Directions for work: Margins may be  $\frac{3}{4}''$  at top,  $\frac{5}{8}''$  at sides, and  $1\frac{1}{2}''$  at base. Title may begin  $2\frac{1}{4}''$  from top of paper, with letters  $\frac{5}{8}''$

high, making a three-line arrangement and lettering the word "and" in letters  $\frac{1}{4}$ " high. If you wish, however, you may choose your own spacing entirely, first carefully planning your sheet. Place your butterfly sketches below the title in some orderly arrangement, the largest in the center.

*Leave a space  $9\frac{1}{2}$ " from your bottom margin for your corner design.*

When your September assignment is finished, hand in your work for your grade. Be sure to have your name and section on every drawing paper you hand in.

## HOUSEHOLD ARTS

- I. Home economics
- II. Home management
- III. Foods
- IV. Clothing
- V. Tests

## ADVANCED HOME ECONOMICS

Aim: To get an insight into relation of bacteriology to food preservation; to realize the importance of household sanitation in its relation to health.

Bibliography: Powell, *Successful Canning and Preserving*; Barnard and Evans, *Citizenship in Philadelphia*; Broadhurst, *Home and Community Hygiene*; Taber, *Business of the Household*; Quinn, *Planning and Furnishing the Home*.

### *First week*

#### A. Housecleaning

- 1. Opening of home after vacation
  - a. Care of china, glass, and silver
  - b. Care of rugs
  - c. Care and arrangement of furniture
  - d. Care and arrangement of kitchen equipment
- 2. Giving especial attention to cleanliness in its relation to health

#### B. Bacteriology as applied to canning

- 1. Molds
- 2. Yeast
- 3. Bacteria
  - a. Classes
- 4. Substances injurious to bacterial growth

5. Methods of preserving food
6. Importance of testing the jars

Read and outline in your notebooks this information.

Reference: *Successful Canning and Preserving*, Powell, chapter 11.

*Second week*

Laboratory work:

Canning in glass      Reference: Powell, chapter V.

Methods of canning

1. Open kettle

2. Cold pack      Reference: Powell, chapter VII.

Canning vegetables      Powell, chapter X.

Making grape juice      Powell, pp. 117-119.

*Third week*

Canning fruits      Powell, chapter IX.

1. Peaches

*Fourth week*

C. Household sanitation

1. Housing conditions in Philadelphia

2. State and municipal laws affecting the home.

References: Barnard and Evans, *Citizenship in Philadelphia*; Broadhurst, *Home and Community Hygiene*.

Laboratory work:

Breakfast: (a) Plan menu, work out total calories, calories derived from protein, cost, and time of preparation for four people. (b) Prepare and serve breakfast.

*Fifth week*

3. Choice and selection of a home

a. Environment. References: Taber, *Business of the Household*, pp. 128-135.

Laboratory work:

Luncheons: (a) Plan menu, work out total calories, calories derived from protein, cost, and time of preparation for four people. (b) Prepare and serve luncheon.

*Sixth week*

4. Type of house. Reference: Quinn, *Planning and Furnishing the Home*, ch. 11.

## Laboratory work:

- Dinners: (a) Plan menu, work out total calories, calories derived from protein, cost and time of preparation for four people. (b) Prepare and serve dinner.

*Seventh week*

## Check-up

## Laboratory work

- Cleaning of dining room  
Cleaning of kitchen closets  
Making of javelle water

## 10 B HOME MANAGEMENT

Aim: To learn to appreciate the fact that home-making is a dignified profession and not a useless drudgery; to gain a knowledge of the advantage of running the home on a businesslike basis.

Requirements: Notebook, scrapbook, personal expense account.

Text: *The Business of the Household*, by C. W. Taber.

*First week*

A. Is household management a profession? Read chapter I in Taber and outline in your notebook your supporting arguments.

B. Is household management ever a drudgery? Show ways of preventing this state of affairs.

C. What are the basic principles upon which to build a home? Read chapter II for information.

*Second week*

A. What is meant by income? By budget?

B. How may a high school girl prepare herself for keeping a family budget? Compare dologing method with the allowance plan and tell which method is better and why.

C. Keep personal budget for term as per blackboard instructions.

References: Kinne and Cooley, *Foods and Household Management*, chapters 19 and 20; Taber, *Business of the Household*, chapter III.

*Third week*

A. Why are most household expense accounts impractical? How can they be improved? Text, chapter VI.

B. In general, how may an income be apportioned? Text, pp. 61, 62, 63.

C. Can you make this method of apportionment suit the needs of your own family? Make out a scheme for your family.

*Fourth week*

A. Study apportionment of incomes: small, moderate, and large. What is striking about the range of percentages? Apply Engel's laws to these tables. Do the laws hold true?

B. What factors must be considered in apportioning the income? Text, pp. 63, 64, 65.

*Fifth week*

Problem: Starting with scheme worked out last week for apportionment of income, plan for keeping a budget which suits conditions, needs, and income of your own family.

*Sixth week*

A. What are various sources of the family income? Text, pp. 76-81.

B. What do you think of credit in household finance? Text, pp. 81-89.

C. Line up the advantages and disadvantages of buying on the installment plan.

*Seventh week*

First period, test. All notebooks in.

Second period, graph stamping and explanation of new assignment.

## FOODS 1 A

## Equipment :

1. Uniform: Apron with bib and pocket; cap; oversleeves, if long-sleeved dress is worn; towel with tape on corner; pot holder.
2. Notebook: Assignments pasted in book, followed by notes on that assignment; book and assignment to be stamped at end of each month; equipment list and rules for dish washing to be pasted in notebook.
3. Portfolio 12"  $\times$  15".

## ASSIGNMENT I

Aim: To impart knowledge concerning the relation of foods to health, to train in making intelligent choice of foods for personal and family use, and to teach food service and table courtesies.

Bibliography: Broadhurst, *Home and Community Hygiene*; Greer, *School and Home Cooking*.

*First week*

## A. The high school girl and her health

1. Definition
2. Conditions affecting high school girl's health

Reference: Broadhurst, *Home and Community Hygiene*, chapters 13, 14, 15, 16.

## Health score check-up

Weight for height	Hair	Muscles
Eyes	Breath	Skin
Ears	Digestion	Posture
Nose	Elimination	Vigor
Feet	Throat	Disposition
	Teeth	Sleep

## B. Food: composition and use

1. Food
  - a. Definition
2. Food stuffs
  - a. Source
  - b. Function

Outline in notebook.

Reference: Greer, *School and Home Cooking*, pp. 257-258. For more definite information, see index.

*Third week*

Laboratory work :

1. Room equipment
2. General rules for lighting gas burners and gas ovens
3. General rules for housework

Preparation of cocoa

Read and outline in Greer, *School and Home Cooking*, pp. 166-169.

*Fourth week*

C. Food for girls and boys

1. Necessity
2. Necessity for breakfast
3. Selection of school luncheon

Problem to be worked out in notebooks: Plan a breakfast suitable for yourself; breakfast to be prepared the following week in class.

*Fifth and sixth weeks*

Laboratory work :

Preparation of breakfast dishes, previously planned.

*Seventh week*

Check-up

FOODS 2 A

ASSIGNMENT I

Aim: To appreciate the fact that homemaking is a dignified profession as well as an art and a business; to study some of the problems of the home; to plan and prepare menus suitable for various groups, individuals, and occasions.

Bibliography: Kinne and Cooley, *Foods and Household Management*; Pirie, *Science of Homemaking*; Taber, *Business of the Household*; Greer, *School and Home Cooking*; Greer, *Textbook of Cooking*.

## I. Food preservation :

Reasons for spoilage, principles and methods of preservation.

Read and outline: Greer, *School and Home Cooking*, pp. 474-513.

## II. Laboratory work: Cold pack canning of peaches or tomatoes.

Be familiar with the method.

## III. Problems of homemaking :

A. List problems that homemaker must solve

B. Result of poor preparation

C. Available sources of information

Reference: Taber, *Business of the Household*, chapter I.

## IV. The budget :

A. Meaning

B. Aim

Plan budget for family of five having income of \$2000 a year living in your community. Read one of the following :

Kinne and Cooley, *Foods and Household Management*, chapter XIX ;

Pirie, *Science of Homemaking*, chapter 22 ; Taber, *Business of the Household*, chapter 7.

## V. Review of foods :

Definition ; foodstuffs, etc.

Reference: Last term's notes. Greer, *School and Home Cooking* ; Taber, *Business of the Household*. Plan a simple luncheon to be prepared and served in class the following week.

## VI. Preparation of luncheon.

VII. Test covering work of September and October. Graphs marked ; notebooks and assignments stamped.

## 10 A CLOTHING

## ASSIGNMENT I

Time: Four lessons of one double period each.

Bibliography: Baldt, *Clothing for Women*, Chapters 1, 2, 3 ; outline briefly Woolman, *Clothing, Choice, Care and Cost*.

Later on in the term, there will be a test on general information from these books.

Aim: To give you a general knowledge of the principles of garment making and a greater appreciation of the laws of beauty in relation to yourself and to others.

"Plan your work and work your plan."

Grading: 10 for directions, 30 for effort, 40 for accuracy, 20 for finish.

Supplies: portfolio, 9"  $\times$  15", expanding scissors, 2 yds. unbleached muslin, 36" wide, thimble, 1 spool white cotton #70, pencil, 1 bobbin #66 Singer Machine, eraser, 1 pin cushion, 3"  $\times$  5".

All these supplies must be on hand each lesson.

#### Problem I. Machine demonstration

##### A. Practice on paper

1. Straight lines  $\frac{1}{2}$ " apart
2. Start and stop
3. Turn corners
4. Curves

##### B. Practice on material

1. Stitch  $\frac{1}{2}$ " from edge
2. Stitch on edge
3. Fasten ends
4. Strengthen ends

Problem II. Make plain, French, and flat seams. For material, see starred paragraph.

A. Plain seam: Place two right sides of material together. Pin. Baste  $\frac{1}{2}$ " from edge. Stitch beside basting. Remove basting. Trim edges of seam and overcast.

B. French seam: Place two wrong sides of material together. Pin. Baste. Stitch  $\frac{1}{4}$ " from edge. Remove basting. Trim seam to  $\frac{1}{8}$ ". Crease seam flat, so that two right sides are together, line of first seam directly on edge. Baste and stitch so as to cover the raw edges of first seam.

C. Flat seam: Place two right sides of cloth together. Pin. Baste. Stitch,  $\frac{1}{2}$ " from edge. Trim under side of seam to  $\frac{1}{8}$ ". Then turn wide edge over narrow one; lay both flat on the cloth, stitch directly on the edge. Finished seam to be  $\frac{1}{4}$ ". See sample.

Print name and number on all finished work. Present it for rating.

Problem III. Demonstration in the handling of material: Tear end of material. . . . Measure 10" along selvedge edge; place pin. Tear off material full width of goods. Measure 27" along torn edge. Clip. Tear off muslin and divide in half. Tear remaining material

in 4 parts. See illustration. Make plain, French, and flat seams, using 4 strips of torn material left from bag.

Make flat seam at bottom of bag,  $\frac{1}{4}$ " wide, and French seams at sides of bag,  $\frac{1}{4}$ " wide, 2" hem at top of bag,  $\frac{3}{4}$ " casing for drawing strings (tape), 4 buttonholes,  $\frac{1}{2}$ " from sides,  $\frac{1}{2}$ " high; on outside of bag, buttonhole cut through one thickness of material.

Present all work to teacher for rating. Print name on bag, in center, 4" from bottom of bag,  $\frac{1}{4}$ " high.

#### ASSIGNMENT II

Making and trimming an apron.

A. Demonstration: Alteration of standard pattern to different girls in class. Cutting. Making.

B. Directions for cutting: Be sure your apron is right length. Be sure your belt pattern is right length. Be sure your neck pattern is right length.

Lay center front of pattern on lengthwise fold of material. Pin. Place neck on fold of material, above bib of apron. Allow  $\frac{1}{4}$ " from edge of pattern for seams.

Place belt on material as directed.

Do not cut until your placing has been approved by teacher in charge.

Cut apron, fold up pattern, return with parts pinned together to the teacher.

C. Directions for making: Baste belt and neck pieces first, as per demonstration. Baste  $\frac{1}{4}$ " seam, beginning at left side of apron, clip first turn of goods on convex curves so as material will spread. Notch around concave curves to bring material together for second turning. Present basting for approval before proceeding.

Attach belt to apron by flat seam on right side. Attach neck to apron as per demonstration. Facing of bib:  $2\frac{1}{2}$ " long and as wide as bib plus 2". Follow directions as given in demonstration. Place button on belt, reinforce left side of apron with strip of material  $\frac{3}{4}$ "  $\times$   $1\frac{1}{4}$ " for buttonhole, the size of the button. Cut 2 pockets 6"  $\times$  7" each. Turn down  $1\frac{1}{2}$ " for hem, baste, stitch on machine, turn down  $\frac{1}{4}$ " on other 3 sides. Then pin pocket in place and stitch on edge beginning at hem line of pocket. Then stitch all around pocket close

to edge as possible and come back to hem line, to reinforce stitching, so that it will not rip.

*D. Applique. Demonstration:* Use design made in Art Department. Present color scheme for approval. Use cotton material and blanket stitch with black D. M. C. Thread No. 25 (*2 strands of thread only*).

*E. Optional assignment:* Apron like classroom sample to be contributed to May Fair; tea bags for foods department.

Make towels, curtains, etc., for home economics department and school.

#### ASSIGNMENT III

The princess slip.

*A. Demonstration:* Sketch of slip in notebook with individual measurements; kind of material suitable and amount needed.

*B. Directions for cutting:* Cut out panel back first, length of back from bust line to required length plus 1" for hem at line of bust plus amount desired for hem at bottom of skirt, 4" to 18".

For front, fold material in half so that the selvages are together.

Measure from center front  $\frac{1}{2}$  bust measure plus 3" for fullness; place pin.

Measure down from this point 15" and place pin.

Measure from this point 5" in toward center and place pin.

Cut according to demonstration.

*C. Direction for making:* Gather on hip line  $\frac{1}{4}$ " from raw edge and  $\frac{1}{2}$ " from side.

Gather second row  $\frac{1}{4}$ " from first line of gathers.

Pull up both lines of gathers at same time, wind surplus thread around pin to required length, pin, baste.

Pin tape or material to match slip over first line of gathers, baste, stitch on machine. Turn down other edge  $\frac{1}{4}$ ", baste. Stitch as per demonstration.

French seams at sides, attaching front to back of slip —  $\frac{1}{4}$ " seams.

Hem at bust line 1". 2 buttonholes  $\frac{1}{4}$ " from top,  $\frac{1}{4}$ " long, and  $\frac{1}{2}$ " apart for tape or ribbon in center front inside of slip. Cut through 1 thickness of material.

Hem at bottom to be amount required.

Straps over shoulder may be of ribbon or lingerie tape or same material as slip, 5" from center front, 4" from center back.

Present to teacher for rating when finished.

### CLOTHING 10 B AND 11 B

Bibliography: Woolman, *Clothing, Choice, Care and Cost*, Chapter 2, "Shopping and Etiquette and Care and Hygiene of Clothing"; Taber, *Business of the Household*, Chapter on Budgets; Woolman and McGowan, *Textiles*, Chapters on Cotton, Linen, Silk, and Wool.

Read chapters in these books and outline briefly. There will be a test later on this subject matter.

Supplies needed: portfolio, 9"  $\times$  15". Print name and address on right side 2" from bottom,  $\frac{1}{4}$ " high, in ink; pin cushion, 3"  $\times$  5"; scissors (about 5" long); bobbin, #66 Singer; pencil; eraser; thimble; spool cotton to match material, #70; material for cotton wash dress (gingham, chambray, percale, linene, linen, indian head).

Practical work for the term: buying material and pattern; alteration of pattern; placing of pattern; cutting, pinning, basting, fitting collars and cuffs, sleeves, hems, trimming.

1. Write name and day and period on envelope of pattern.
2. Take measure from nape of neck to bottom of skirt, add width of hem. Measure the girl sitting with you. Write measurements in your notebook.
3. Read very carefully the directions for placing your patterns.
4. You have a choice of collar and cuff. Sort out the ones you do not want, pin them together and put them back in envelope.
5. If pattern is too long shorten by placing tuck across the bottom of pattern about 5" from edge.
6. If you change back, change front also in the same way and same amount.
7. If pattern is too short add required amount at bottom when you cut material.
8. In increasing or decreasing the bust measure of pattern alter  $\frac{1}{4}$  of the necessary amount both back and front as indicated.
9. Be sure to understand symbols and directions before you lay your pattern on material.
10. Place pattern economically.

11. Pin carefully.

12. Do not cut until work has been inspected.

Do not remove any piece of pattern until you are ready to use that particular piece. Then fold patterns and replace patterns in envelope, first seeing that all notches have been carefully cut in edge of material. Notches must be small and sharply cut. If material ravel easily, mark notches with contrasting colored thread.

All garments must be basted and fitted before stitching is done by machine. Pocket locations, gathers, etc. must be marked with tailor tacks, using contrasting colored thread. See demonstration.

Baste for plain seams. Before putting your garment together, construct just as much as possible on each piece of garment. Use dressmaker's basting, which consists of two short stitches and a space. Fasten ends of thread very carefully, or seams will come apart.

Remember to baste as far from edge as pattern has *allowed* for *seams*.

Before stitching seams by machine, examine machine to see whether the stitch is satisfactory.

## TESTS

### FOODS I A

Name..... Rating.....

Bk. no. . . . .

Write one word in each blank space.

1. The foodstuffs are —, —, —, —, —, and —.
2. —, —, and — produce heat and energy.
3. — and — are body builders.
4. —, —, —, and — help to regulate body processes.
5. There are — tablespoonfuls in one cup of flour.
6. — teaspoonfuls equal one tablespoonful.
7. A high school girl should drink at least — glasses of water daily.
8. Cereals should be thoroughly cooked in order to cook the —, soften the —, and develop the —.
9. Dishes in which starch has been cooked should be soaked in — water before washing.

10. Water is best replaced in dried fruit by — in — water overnight.

Underline word or phrase which seems to complete the sentence correctly.

1. Minerals are used in the body to — furnish energy — help to regulate body processes — give bulk — satisfy the appetite.

2. Vitamines are useful for — producing heat and energy — preventing certain diseases — digesting foods — hardening the bones.

3. Carbohydrates are used in the body to — furnish energy — build tissue — regulate body processes — promote growth.

4. To cook cereal successfully — pour boiling water over cereal and stir — shake cereal into rapidly boiling water, stirring meanwhile — stir cereal into water which is just beginning to boil.

5. In order to have good teeth, one must use plenty of — meat — milk — bread — eggs.

6. The best method of making cocoa is — add cocoa to sweetened milk and heat — mix sugar and cocoa and add hot milk — mix sugar and cocoa, add water and boil, then add the paste to hot milk and cook in a double boiler.

7. The best breakfast for a high school girl is — fruit, toast, coffee, — bread, butter, cereal, — pancakes, syrup, bacon, cocoa, — fruit, oatmeal, toast, milk.

8. The way to light a gas stove is — strike match, turn on gas, and hold match to burner — strike match, hold match to burner, and turn on gas — turn on gas, strike match, and hold to burner.

9. A good laxative food is — meat — potatoes — prunes — pie.

10. Cocoa comes from — coconut — cereal — cocoa bean — nuts.

#### FOODS II A

Name ..... Rating .....

Bk. no .....

Write one word in each blank space.

1. —, — and — cause food to spoil.

2. Fruit and vegetables may be preserved from spoiling by — or —.

3. In canning fruit it must be — and then the sterilized jars made — in order to prevent spoiling.

4. Jelly does not need to be placed in airtight jars, as the large amount of — keeps it from fermenting.

5. Unless fruit contains a material called — it cannot be used for jelly making.

6. The foodstuffs that build the body are — and —.

7. —, —, and — give heat and energy to the body.

8. —, —, —, and — help to regulate the various body processes.

9. Green vegetables are valuable foods because they contain —, —, and —.

10. The mineral which helps to harden the bones and the teeth is —.

Underline word or phrase which seems to complete the sentence correctly.

1. Energy foods are those that are rich in carbohydrate — minerals — vitamins — cellulose.

2. Vitamins are necessary because they — harden bones and teeth — give bulk to the food — prevent certain diseases — give flavor to the food.

3. We should drink milk chiefly because it — has no waste — is a body builder — contains a good deal of iron — requires no cooking.

4. The per cent of the income to be spent for food should not be considered — varies with the size of the income — should never exceed 10 per cent.

5. A food budget is advisable because — it allows more money for food — it apportions the proper amount to be spent for the various types of food — it lessens the amount of work — it is recommended by food experts.

6. Jelly does not spoil easily because — covering with paraffin sterilizes it — bacteria will not grow in acid — a large amount of sugar acts as a preservative — it is boiled in the making.

7. The proper conditions for keeping perishable fruits in the home are — in a fruit dish in the dining room — in a paper bag in a cupboard — in a paper bag in the ice box — spread out in a cool dry place.

8. Dried fruits do not spoil easily because — the skin is left on — acid is present in the fruit — conditions are sanitary in the drying process — microorganisms need moisture for growth.

9. The best fruit for jelly making is that which is overripe — ripe — slightly underripe — very much underripe.

10. The amount of water an adult should drink is approximately 1 or 2 glasses — 6 or 8 glasses — 3 or 4 glasses — 15 or 16 glasses.

Optional assignment:

Make a chart showing typical division of an income of \$2,000 — family of five.

#### CLOTHING I

Directions: Draw a line under that one of the four words which seems right.

1. Moths eat clothing made of cotton — linen — silk — wool.

2. Thread is numbered. Which is the finest, no. 40 — no. 32 — no. 80 — no. 24?

3. Linen fiber comes from cotton — flax — hemp — jute.

4. Which of the following materials is normally the cheapest, silk — wool — cotton — linen?

5. Mercerizing goods improves its wearing qualities — color — appearance — strength.

6. The most satisfactory dish towels are made of linen — jute — dimity — cotton.

7. Velvet is freshened by washing — pressing — brushing — steaming.

8. Flax is an artificial fiber — a vegetable fiber — an animal fiber — a mineral fiber.

9. The cotton gin was invented by Whitney — Mercer — Howe — Edison.

10. The stitch on sewing machines is regulated by the tension — bobbin — shuttle — feed dog.

11. To lubricate a sewing machine, use three in one — graphite — lard — two in one.

12. Outing flannel is made from linen — silk — wool — cotton.

13. The thread that is commonly used for basting is no. 40 — no. 80 — no. 60 — no. 100.

14. The sewing machine was invented by Elias Howe — Eli Whitney — Thomas Edison — Samuel F. B. Morse.

15. The best dressed person wears a dress of costly material — artistic design — perfect fit — in keeping with the occasion.

Directions: Answer with one word the following questions:

16. In which hand is the bobbin held before placing in machine?
17. From what direction does the thread in the bobbin come when held in above hand?
18. The flat side of the needle is to the ——— when properly placed.
19. How many places does the thread go on the sewing machine before going through the eye of the needle?
20. On which side of the machine needle should the bulk of the goods in which you are working be placed?

Note: Sometimes assignments and tests have misspelled words, or statement is incorrect. The student is expected to correct assignment, and is marked accordingly.

#### CLOTHING II

Name..... Date.....

Bk. no. . . . . Day and period. . . . .

In left-hand margin check correct statements. Mark with x those which are incorrect.

1. All patterns have the same seam allowance.
2. Buy all patterns by age regardless of size of individual.
3. Prove the length of pattern at center back first.
4. Eli Whitney invented the sewing machine.
5. No. 80 thread and no. 3 needle should be used for basting.
6. Use French seams on all wash dresses.
7. In making a French seam on a fitted garment, stitch  $\frac{1}{4}$ " on outside of basting for first stitching.
8. To secure true bias, lay the lengthwise threads on crosswise threads and cut through the fold.
9. Any machine oil will serve to lubricate the sewing machine.
10. Cotton is grown in warm climates.
11. Linen comes from the flax plant.
12. Silk is a vegetable product.
13. Tussah is the fiber produced by the cultivated silkworm.
14. Linen fibers do not vary in thickness and length.
15. Linen absorbs moisture very quickly.
16. Charge accounts, in stores, are conducive to reckless spending of money.

17. Simple dressing does not necessitate an unattractive appearance, and many of the most elaborately dressed and wasteful spenders have the poorest results.

18. Vegetable fibers burn slowly and with a smell of burning feathers.

19. Pure silk when burning gives off an odor similar to wool.

20. The sweat glands of the body give off daily about 50 ounces of secretion, thus necessitating frequent bathing, also cleansing of clothing.



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